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THE GOVERNMENT OF THE PHILIPPINE ISLANDS  
DEPARTMENT OF THE INTERIOR  
PHILIPPINE HEALTH SERVICE

*Philippine Is. Bureau of public health*

# REPORT OF THE PHILIPPINE HEALTH SERVICE

FOR THE FISCAL YEAR FROM JANUARY 1  
TO DECEMBER 31, 1915

J. D. LONG, M. D.  
DIRECTOR OF HEALTH

MANILA  
BUREAU OF PRINTING  
1916



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# ANNUAL REPORT OF THE PHILIPPINE HEALTH SERVICE, FISCAL YEAR 1915.

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DEPARTMENT OF THE INTERIOR,  
PHILIPPINE HEALTH SERVICE,  
*Manila, March 18, 1916.*

SIR: I have the honor to submit herewith the annual report of the transactions of the Philippine Health Service for the calendar year ended December 31, 1915.

## GENERAL REVIEW.

Surg. Victor G. Heiser, United States Public Health Service, resigned his position as Director of Health for the Philippine Islands, effective February 28, 1915. The undersigned assumed charge March 1, 1915.

On the first of July, in accordance with the provisions of Act No. 2468, which reorganized the former Bureau of Health and changed its name to the Philippine Health Service, the complete reorganization of the Bureau was placed in effect. Preparatory steps for this change had been under way for some time prior to the date on which the law took effect, and the change was brought about in such manner as to produce no disturbance to the routine of the Bureau in any way.

Routine work that has been carried on in previous years was continued throughout the year without interruption. Several new projects were instituted which will only be touched upon in this portion of the report, and the details of which may be obtained from the reports of the various divisions, included herewith.

The Islands as a whole were remarkably free from contagious and infectious diseases throughout the year, with the possible exception of the Department of Mindanao and Sulu where cholera existed to some extent and which was later controlled. In the balance of the Islands, cholera never assumed proportions that might be considered alarming. Some cases occurred in Manila; a small outbreak occurred in the Province of Antique; another in the Province of Bohol, and a few cases occurred in the Provinces of Cebu and La Union and on the Island of Lubang,

Mindoro, but in no instance did the outbreaks assume alarming proportions and the disease was promptly and effectively eradicated.

No human case of plague occurred during the year, and but a single case of rat plague. The city of Manila was extensively poisoned on two different occasions, and thousands of rats were undoubtedly destroyed; in fact, the infected rat was found while fleeing, apparently panic stricken, to escape the effect of the poison campaign.

Smallpox was present in but few localities, and the cases were not in great numbers; the mortality was very low. Vaccination and revaccination are being constantly continued, and it is hoped that the few localities in which the disease still exists to some extent, will be as effectively freed therefrom as has been the balance of the Archipelago.

The only other of the contagious diseases which required any particular attention during the year was an outbreak of diphtheria in the city of Manila, the beginning cases of which showed a high mortality. These cases were accompanied with an excessively large number of carriers which showed a high degree of virulence. Prompt measures effectively removed the danger of its spread.

Under the new law which reorganized the service, the administrative supervision of its work was conducted through the following main divisions: Division of general inspection, division of sanitation of the city of Manila, division of sanitation in the provinces, and division of hospitals, and through the following additional divisions or offices: Clerical office, office of sanitary engineering, property office, office of statistics, and office of district nursing.

Attention is invited to the following points of interest in the reports of the various divisions:

#### **DIVISION OF GENERAL INSPECTION AND HOSPITALS.**

[Under the control of the Assistant Director of Health.]

The activities of the Board of Food and Drug Inspection, which has maintained an excellent supervision over the importation and manufacture of articles used as food or drugs.

Increased activity with reference to the sanitation and improvement of cemeteries.

The activities of the examining boards.

The sanitation of prisons.

The management of the insane and the collection and maintenance of lepers.

The opening of new hospitals.

## DIVISION OF SANITATION, CITY OF MANILA.

Campaign against cholera.  
 Campaign against typhoid fever.  
 Intestinal infection survey.  
 Smallpox and vaccination.  
 Measles.  
 Management of diphtheria outbreak.  
 Supervision and control of water supplies.  
 Campaign for the extermination of flies and mosquitoes.  
 Plague suppressive measures; and  
 Activities of clean-up week.

## DIVISION OF SANITATION IN THE PROVINCES.

Organization of provinces into sanitary districts.  
 Dispensaries.  
 Provincial laboratories.  
 Sanitary commissions.  
 Control of outbreaks of epidemic diseases.  
 Approval of water supplies; and  
 Development and installation of sewage disposal systems.

## OFFICE OF THE ASSISTANT DIRECTOR OF HEALTH.

### GENERAL INSPECTION AND HOSPITAL DIVISIONS.

### MORTALITY IN THE CITY OF MANILA AND THE PROVINCES.

#### MANILA.

With reference to the mortality in the city of Manila, a steady decrease has been observed from 1910 to 1915, as is shown by the following figures:

	Death rate per 1,000.
1910 .....	34.25
1911 .....	35.09
1912 .....	33.32
1913 .....	24.48
1914 .....	22.38
1915 .....	25.54

A comparison of the two five-year periods, 1906-1910 and 1911-1915, which, respectively, had an average mortality of 38.29 and 29.06 shows a decrease of nine units in favor of the second period, a fact which demonstrates the value of the work of sanitation in Manila.

An examination of the death rates for the provinces, which are organized under Act No. 83, shows that although there were fluctuations within each year, the years as a whole exhibit a

tendency toward a steady decrease, particularly from 1909 to 1914 as will be seen by the following figures:

	Death rate per 1,000.
1909 .....	27.97
1910 .....	27.23
1911 .....	26.51
1912 .....	26.67
1913 .....	21.47
1914 .....	22.38

NOTE.—The average for 1915 is not included because at this writing (February 2) several reports for the fourth quarter of that year have not yet been received.

The decrease in the death rates observed above may be explained to a large extent by the continuous decrease in the number of deaths attributable to smallpox which in 1909 caused 6,209 deaths; 3,044 in 1910; 1,192 in 1911; and in 1912, 1913, and 1914, 567, 823 and 438 deaths respectively.

A similar result has obtained with dysentery, which, after being responsible in 1909 for 11,467 deaths, and 16,527, 17,564, and 18,728 in the three next succeeding years, diminished to 7,612 in 1913 and 6,581 in 1914.

A brief review of the general conditions of the country with regard to mortality and prevalent epidemics and infections during the year covered by this report shows that every gain made during the previous years, was due not only to the continuance of the work of sanitation, but also to the fact that progress has been made in combating those diseases and reducing their morbidity and mortality to a minimum.

Cholera, smallpox, bubonic plague, and other acute infections which tend to produce marked increases in the annual death rate, have diminished during the year, being isolated cases only in the majority of instances, while some have been completely excluded from the causes of death.

As has already been demonstrated elsewhere with regard to smallpox, the disease has been almost entirely controlled, the last case having occurred on February 14, 1910. A few cases of varioloid and varicella still occur, in an isolated manner and without deaths.

Of bubonic plague, the last case was registered on September 12, 1914. During 1915, covered by this report, no case of human and but one case of rat plague has been found, and the only remaining signs of its path are the new rat-proof constructions which are being erected in the city of Manila, and the campaign of rat extermination by means of poison and traps, which will



ensure the permanency of the success which has been obtained against this infection.

Cholera ceased to be a problem during this year as far as relates to the campaign carried on during the previous years to rid the country of this infection, as the cases registered during the first quarter of the year were but the remnant of a small outbreak of 90 days in 1914. In the city of Manila there were 60 cases with 40 deaths, and 28 carriers, reported during the first three months of the year; during the same period in the provinces there were registered 286 cases and 210 deaths. During the following nine months an isolated case or so occurred, but these were completely localized.

Diphtheria appeared toward the end of September and every precaution was taken, including the hospitalization of cases and carriers. The infection was under control at the end of the year.

In the provinces progress has been made in sanitation. Some of the steps forward were the organization of more of them into municipal sanitary divisions; the establishment in towns of public accommodations, and the installation in private houses of modern closets and other systems approved by the Health Service. During the great pilgrimages and religious festivals, as in Obando, Bulacan, and Antipolo, Rizal, public closets were installed by the municipalities concerned for the accommodation of visitors. In the Province of Bulacan, the municipal district health officers have opened in each town free dispensaries for the benefit of people living in remote barrios, a practice which is being rapidly followed by other provinces. In the Mountain Province, the highland people are becoming accustomed to apply to the hospitals for the remedy of their ailments, and it is hoped it may soon be possible to establish additional hospitals at convenient points all over the Archipelago.

Act No. 2490, which was approved February, 1915, by the Legislature, provides for the establishment of a Board of Dental Hygiene with the function of establishing and maintaining free dental clinics for poor children of the Philippine Islands. The Board organized promptly and there is already one such clinic in operation in the city of Manila.

#### REORGANIZATION OF THE BUREAU OF HEALTH.

The Bureau of Health, created by Act No. 1407, approved October 26, 1905, by the Philippine Commission, after nine years and ten months of usefulness, during which it established a long record of services rendered to the country, has ceased to be,

becoming, on July 1, 1915, the Philippine Health Service, in accordance with Act No. 2468 of the Philippine Legislature.

By the provisions of the Act, the officers of the Bureau of Health were transferred to the new organization. As a measure of undoubted importance and of progress in the democratization of health administration, a Council of Hygiene was created, which is expected to lend its aid to the Director of the Service, and to exert its incontestable influence with the people to lessen the friction that sanitary measures are liable to produce, thus establishing a necessary equilibrium for the ever progressive and efficient operation of the Philippine Health Service.

Anticipating the enforcement of Act No. 2468, the following gentlemen were appointed, on June 3, 1915, as members of the Council of Hygiene:

Dr. FERNANDO CALDERÓN, President.

Term of 5 years.

Professor of the College of Medicine and Surgery.

University of the Philippines.

Dr. MANUEL S. GUERRERO, Member.

Term of 4 years.

Professor of the Faculty of Medicine, University of Santo Tomás.

Dr. BENITO VALDÉS, Member.

Term of 3 years.

Member of the Colegio Médico-Farmacéutico de Filipinas.

Dr. JOSÉ ALBERT, Member.

Term of 1 year.

Member of the Philippine Islands Medical Association.

Sr. JOSÉ ESCALER, Member.

Term of 2 years.

Attorney for the city of Manila.

Sr. TOMÁS EARNSHAW, Member.

Term of 5 years.

Property and factory owner.

Dr. MANUEL GÓMEZ, Member and secretary.

Term of 5 years.

A senior officer of the Philippine Health Service.

In accordance with the provisions of the Act, the higher personnel was constituted in the following manner on July 1, 1915:

Dr. John D. Long, Director.

Dr. Vicente de Jesus, Assistant Director, chief, division of general inspection.

Dr. Salvador V. del Rosario, chief, division of sanitation, city of Manila.

Dr. Paul Clements, chief, division of sanitation in the Provinces.

Chief, hospital division, vacant.

Twelve deputy chiefs of division, filled.

Nineteen medical inspectors, 10 filled.

Forty senior surgeons, filled.

Forty junior surgeons, filled.

Assistant surgeons are employed in varying number, in accordance with the needs of the service. Eighteen assistant surgeons, have been appointed.

The duties of each division were outlined by an order of the Director of Health on the 1st of July, as follows:

# OUTLINE OF DUTIES OF DIVISIONS AND OFFICES OF THE PHILIPPINE HEALTH SERVICE.

*Division of general inspections.*—To make such inspections of the operations of the service as may be required or directed.

To handle all matters pertaining to cemeteries.

To pass upon, and prepare for the approval of the Director, all matters of a disciplinary nature.

To prepare for approval of the Director, all travel orders.

To prepare the quarterly report and to assist in the preparation of the annual report.

All matters pertaining to the Board of Medical Examiners, the Board of Pharmaceutical Examiners and the Board of Dental Examiners will be referred to him for attention.

*Chief of the division of sanitation, city of Manila.*—Will have charge of all matters pertaining to health and sanitation in the city of Manila, with the exception of foods and drugs, and such other specific matters as are handled by the Assistant Director of Health. This division will render every possible coöperation to the Assistant Director of Health in the performance of such of his duties as pertain to the city of Manila.

*Chief of the division of sanitation in the provinces.*—Will have charge of all matters pertaining to health and sanitation in the provinces, with the exception of such matters as are handled by the Assistant Director of Health.

*Chief of the division of hospitals.*—Will have charge of all matters pertaining to all hospitals under the control of the Philippine Health Service and will prepare such reports and statistics as may be deemed advisable.

*Duties of the office of sanitary engineering.*—Will have supervision over all matters pertaining to sanitary engineering and construction in the Philippine Islands.

*Duties of the office of property.*—Will issue supplies, etc., upon proper requisition approved by the Director and perform such additional duties as assigned by the Director.

*Duties of clerical office.*—Will have charge of all correspondence, files, and financial matters.

*Duties of statistical office.*—Will have charge of all vital statistics, burial permits, etc., for Manila, and admissions to charitable institutions in relation with the Service.

## SEPARATIONS FROM THE SERVICE.

A number of old and valued employees were lost to the service during the year by death or resignation.

Dr. José Losada, district health officer for Batangas, died at his home in Lipa, 2 p. m., June 27, 1915. He was born October 8, 1855, in Manila, and had been almost continuously on duty in health work in the Province of Batangas for 30 years, having been appointed as health officer in May, 1879, by the Spanish authorities. Doctor Losada distinguished himself in the service of his people, not only as a sanitarian but as governor of the Province of Batangas. His death, at 60 years of age, was most unexpected. The Bureau had hoped to enjoy the benefit of his large experience and excellent training for many years.

Dr. R. E. L. Newberne, who had been in the Health Service since May 31, 1902, and who left the Islands in May, 1914, in order to recuperate his health, severed his connection with this Service by resignation during 1915. His long service, wide experience, and above all, his broad, sympathetic character, had earned him an enviable record here and made his separation from the service a serious loss. Doctor Newberne is at present employed with the United States Indian Service.

Dr. J. E. Snodgrass, another of the able officers of the Service, tendered his resignation during 1915. He had shown exceptional ability in all work intrusted to his care and it was due to him that the exhibit of the Philippine Health Service at San Francisco obtained the highest possible awards. Doctor Snodgrass is now the representative in Ceylon of the International Health Commission.

#### FOOD AND DRUG INSPECTION.

The Board of Food and Drug Inspection held regular meetings twice a month, to pass upon questions arising in connection with the enforcement of the Food and Drugs Act, and Act No. 2342 with reference to patent and proprietary medicines and advertisements thereof, and to receive protests against any action taken in the administration of these laws.

Act No. 2317, amending the Food and Drugs Act in the sense of requiring a statement of the quantity of the contents in terms of weight, measure or numerical count on all labels of food in package form, has been enforced since November 5.

Of importations of foods of which samples were submitted to the Bureau of Science, 151 were admitted as they arrived, 41 were admitted on amendment of label, and 21 were rejected. Of medicines, 1 was admitted without relabeling, 10 on amendment of label, supplying formula, or removing exaggerated or misleading announcements accompanying the medicines, 1 was rejected, and 25 represented Chinese medicines now in the

customhouse which will be released when the English or scientific name of the ingredients is supplied.

Of labels for proprietary medicines submitted to the Board, 30 were approved and changes were required in 9. Of food labels submitted, 3 were found to be in accordance with the law and 28 required to be amended.

Forty-four newspaper advertisements of patent medicines were submitted, of which 26 were approved and 18 rejected.

From pamphlets advertising patent medicines were found to be in violation of Act No. 2342, and various circulars, post cards and other forms of advertisement approved.

Soft drinks and bakery products manufactured throughout the Islands were submitted to the Bureau of Science for analysis for saccharin and coloring matter, and wherever the use of saccharin, nonpermitted colors, or permitted colors not mentioned in the label, was found, it was ordered discontinued.

Saccharin was also found in the anisado and carabanchel manufactured in Manila and its use directed to be discontinued.

A bacteriological analysis of local soft drinks showed a very high bacterial count and the presence of *B. coli*; the matter was taken up with the manufacturers with a view to securing the cleanliness of their establishments.

Manufacturers were instructed as to the proper labeling of various products, including table sauce, mixtures of chocolate with other ingredients, imitation coffee and coffee substitutes, fruit syrups, soft drinks, vinegar, and dilute acetic acid as a substitute for vinegar, tinto, gin, and jelly.

Other matters considered were milk with a high bacterial count and colon bacilli present and low in fat; nonpermitted coloring matter sold in the city markets for coloring shrimps; questions as to the application of Act 2342 to various products; and formulas for various patent medicines.

#### CEMETERIES IN THE PROVINCES.

The handling of all questions regarding cemeteries, whether municipal, private, or belonging to any religious organization, has always been under the charge of the Assistant Director of Health and continued under the same office after the reorganization of the service by Act No. 2468.

It is regretted to have to report that in many cases cemeteries are neglected by their administrators. They usually fail to comply with the law (section 12, Act No. 1458) either by not having cemeteries approved or by using those which have been closed by this office; but in almost all cases, such cemeteries are

in a state of abandon, merely underbrush with no fencing of any kind, no apportioning of the ground into lots, no street lines, nor alleys, etc., as prescribed by regulations of this office and promulgated in accordance with section 36 of Act No. 1458.

In order to remedy the above-described condition of cemeteries in the provinces, a circular, N-103, was issued by this office to district health officers directing them to inspect all cemeteries, not only as to their external appearance (fence, gates, etc.) but also the conditions inside, especially as regards streets and alleys, division into lots, order and numbering of graves, state of preservation of niches, their numbering, embellishment, etc., and all other conditions prescribed by the law and the regulations of this office.

As a result of this circular, forty-two cemeteries were reported at the end of this year as being in an insanitary condition and twenty-one cemeteries were ordered to be closed as shown by the following table:

New cemeteries approved .....	85
Old cemeteries approved.....	10
Old cemeteries opened.....	14
Old cemeteries closed.....	21
Extensions approved .....	5
Insanitary cemeteries .....	42

#### BOARD OF MEDICAL EXAMINERS.

##### MEMBERS OF THE BOARD.

Almon P. Goff, M. D., president.

Miguel A. Velarde, M. D., member.

Eleanor J. Pond, M. D., secretary-treasurer.

The Board held ordinary sessions from time to time, and examinations in writing during the year, with the following results:

M. D. with United States diplomas, examined and registered.....	2
M. D. registered without examination in accordance with Act 1632....	12
M. D. with civil-service certificates, orally examined and registered....	5
New doctors graduated.....	19
Licentiates of the University of Santo Tomás examined.....	46
Not passed .....	2
New licentiates graduated.....	22
Cirujanos ministrantes examined.....	19
Cirujanos ministrantes registered after examination.....	7
Cirujanos ministrantes not examined in accordance with Act 310.....	2
New cirujano ministrantes graduated.....	9

In the examination held April, 1915, of the 29 candidates who presented themselves for examination, 18 passed without condition, and 11 were subjected to a further oral examination. These

candidates are the first to have paid the new fees of ₱50 for examination.

An opinion was rendered by the Attorney-General during the year concerning cirujanos ministrantes in their practice as physicians, by which they are only to be permitted to practice as such in remote towns where there is no doctor or licentiate practising medicine, in conformity with section 5 of Act No. 310.

No applications were received for examination as midwife.

A total of ₱3,400 was collected, which has been duly turned into the Insular Treasury.

#### BOARD OF PHARMACEUTICAL EXAMINERS.

##### MEMBERS OF THE BOARD.

- D. Servando de los Angeles, president,
- D. Rafael Carreón, member,
- D. Rodolfo Garcia Roxas, secretary-treasurer.

The Board held two examinations, one on January 5, 6, and 7, 1915, at which 85 candidates presented themselves, and the other on July 6, for which 97 applications were filed, or a total of 182 applications for examination during the year 1915. Of this number 134 attained the required average and received their certificates.

During the same year a certificate of pharmacist was granted by the Board in accordance with Act No. 2382; 2 certificates to Chinese druggists; 1 provisional certificate, and 71 apprentice certificates.

A total of ₱2,942 in examination fees was collected during the year.

#### BOARD OF DENTAL EXAMINERS.

In accordance with the provisions of Act No. 2462, approved February 5, 1915, the Director of Health, on May 19, with the approval of the Secretary of the Interior, appointed the following members to compose the Board of Dental Examiners:

- Dr. A. P. Preston, president, term expires December 31, 1915.
- Dr. Louis Ottofy, secretary-treasurer, term expires December 31, 1916.
- Dr. G. R. Mateo, member, term expires December 31, 1917.

The new Act provides that all dentists who have been in practice for more than three years and desire to continue their profession, shall apply for a new registration certificate within six months after the organization of the new Board of Examiners, that is, by November 20, 1915.

The total number of certificates issued since 1913 to the end of the year 1915, was 178.

New certificates were not issued, in 84 cases, for the following reasons:

For less than three years' practice.....	67
Deceased .....	7
Provisional certificates canceled.....	6
Duplicates canceled .....	2
For mental disease of holder.....	1
Revoked .....	1
Total .....	84
Dentists entitled to new diplomas.....	94

Of these 94, 85 certificates have been issued. It was repeatedly requested of the dentists not to neglect compliance with the new law in order not to lose the privileges granted by the same. No Filipino doctor failed to comply with the requirement. Only 5 failed to comply with the provisions of the law, for various justifiable causes, and 4 dentists of the United States Army who are exempt from this requirement.

The new Act also provides that the Board shall establish a plan of instruction for all dental schools. Rules to that effect had been already adopted by the Board in December, 1914, which were approved on May 20, 1915. In accordance with the requirements of the new law, those rules were submitted to the Director of Health and the Secretary of the Interior for their approval, and after a public and private discussion, they were amended, altered, and finally approved by them on July 1, 1915, since which date they have been in effect.

#### EXAMINATIONS.

During 1915, the Board held three examinations, during the months of January (under the old law), and June and December (under the new law). In accordance with the old law examinations were to be held every first Tuesday of January and July of each year (Act 593); by the new law (2462) it is prescribed that the Board shall convoke examinations on the second Tuesdays of June and December, this Act going into effect on February 5, 1915.

At the January, 1915, examination, 22 candidates presented themselves, all of whom received their certificates in accordance with the old law.

Under the provisions of the new Act, three provisional certificates were issued by the Board on condition that the holders take the examination the following June.

Eight renewed their provisional certificates through the payment of ₱2 each in accordance with the new law.



In the examinations of June, 1915, 20 candidates presented themselves, 4 of whom received the degree of doctor, as having come from reputable schools of the United States. Of the 16 coming from the University of Santo Tomás, 4 passed the examination and were granted a certificate of assistant dentist.

In the December examination 16 assistant dentists from the University of Santo Tomás presented themselves, 4 of whom received the corresponding certificate after passing the examination.

*Results of the three examinations of January, June, and December, 1915.*

Month.	Candidates.	Doctors.	Assistant dentists.	Disapproved.
January .....	22	0	22	0
June .....	20	4	4	12
December .....	16	0	7	9
Total .....	58	4	33	21

#### COLLECTIONS DURING THE YEAR 1915.

For 22 certificates as assistant surgeons in accordance with the old law .....	₱220.00
For 3 certificates, provisional, in accordance with the new law.....	90.00
For 8 renewals of certificates in accordance with the new law.....	16.00
Total .....	326.00

The total of amounts collected during the previous twelve years was ₱2,039, against a total of ₱1,612 during the year 1915, or a grand total of ₱3,651 since the organization of this Board in 1903.

#### HOSPITAL DIVISION.

This division, which was created by section 14 of Act No. 2468, had its duties transferred to the Division of General Inspection by virtue of Act No. 2540.

The work of the hospitals already established in the provinces has continued to progress, with notable benefit to those who attend them, ever in larger numbers, to profit by the modern means provided for the treatment of diseases. This is shown by the hospital reports included herewith. The progress attained by the hospitals at Naga, Camarines, at Bayombong, Nueva Vizcaya, and Iwahig Penal Colony, is not, however, our only source of satisfaction. New hospitals began operations during the year, at Tacloban, Leyte, and Puerto Princesa, Palawan; and others are in prospect, as at Cuyo, Palawan, for which ₱13,000 was appropriated by the Legislature; at Siquijor, Oriental Negros; at Iba, Zambales; and at Romblón, for which a new (and never used) coal storehouse, built of reinforced con-

crete, has been secured. There is also in project a hospital for the capital of Albay and another for the municipality of San Pablo, Laguna.

#### BILIBID PRISON HOSPITAL.

The average death rate during the year 1915, covered by the present report, was 13.33 per annum, based on a daily average of 5,706 prisoners, of which 3.68 represents deaths caused by nontuberculous disease and 9.65 caused by tuberculosis. Of the deaths from this disease, 4 were Chinamen, 71 male Filipinos, and 1 female Filipino, making a total of 75 deaths from tuberculosis during the year. The total number of deaths occurring among the prisoners in other penal institutions was 29. The deaths rate in 1914 in Bilibid Prison was 19.36 per annum, of which 8.49 represented deaths caused by nontubercular diseases and 10.86 by tuberculosis.

The general death rate of the Philippine Islands during 1914 was 22.38 and for the city of Manila during 1915 was 25.54 per thousand per annum.

The following charts are of interest in showing graphically the gradual improvement in health conditions at Bilibid Prison.

#### PREVAILING DISEASES IN BILIBID PRISON—THEIR MORBIDITY.

The following diseases were prevalent among the prisoners during the year: Intestinal parasites, amebiasis, filariasis, tuberculosis, venereal diseases, contagious diseases of the eye, contagious diseases of the skin, and diseases of the respiratory passages.

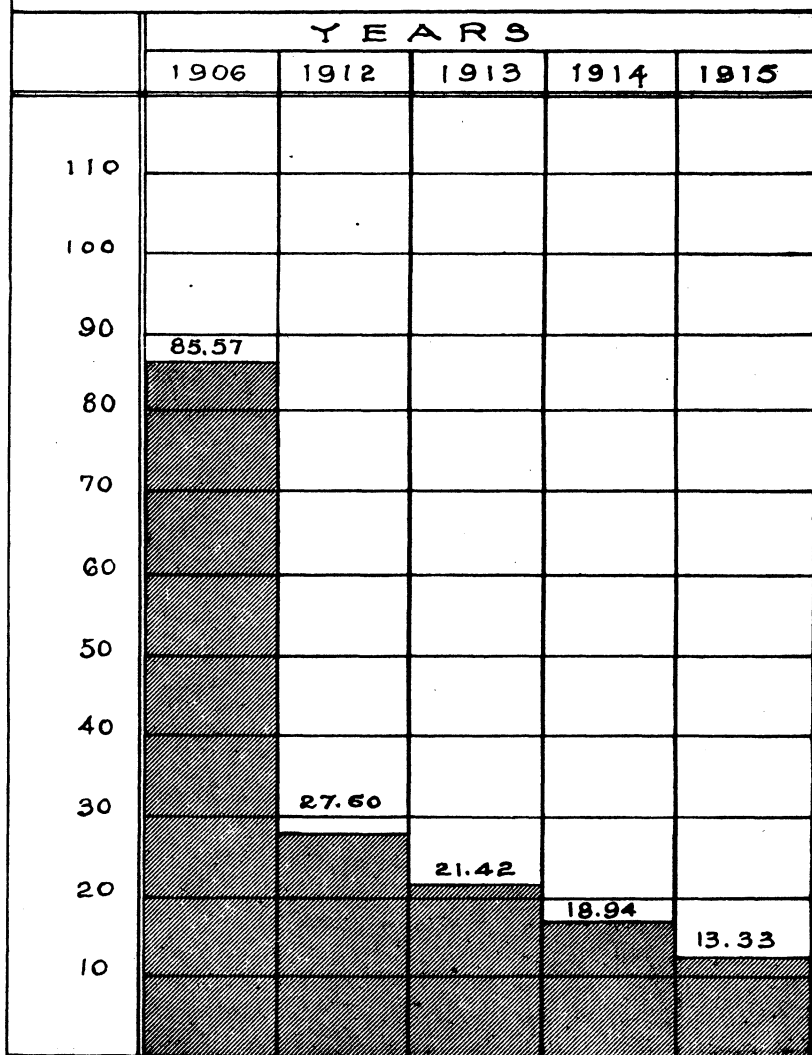
*Intestinal parasites.*—Following the practice long established in Bilibid, the prisoners, upon admittance, are subjected to five or more days' quarantine in a building used especially for that purpose, and during this period samples are taken of their blood for filariasis, and of feces for intestinal parasites, amebae, etc., those found positive being sent to hospital for treatment.

There were 13,297 fecal specimens examined during the year 1915. The laboratory report shows that 67.68 per cent of the new admissions were infected with intestinal parasites; 2.10 per cent with amebae; 14.73 per cent with ankylostomiasis; and 33.09 per cent with ascaris lumbricoides. *Balantidium coli*, *fasciolata*, *Ilocana-Garisoni*, and *opisthorchis sinensis*, and other rare parasites were occasionally encountered. During the year there were found 1,189 cases of ankylostomiasis, 1,907 of ascaris lumbricoides, 371 of amebiasis, and 9 of *tenia saginata*, all of which were treated in the hospital, with no deaths.

*Filaria.*—There were 9,038 blood specimens examined for fila-

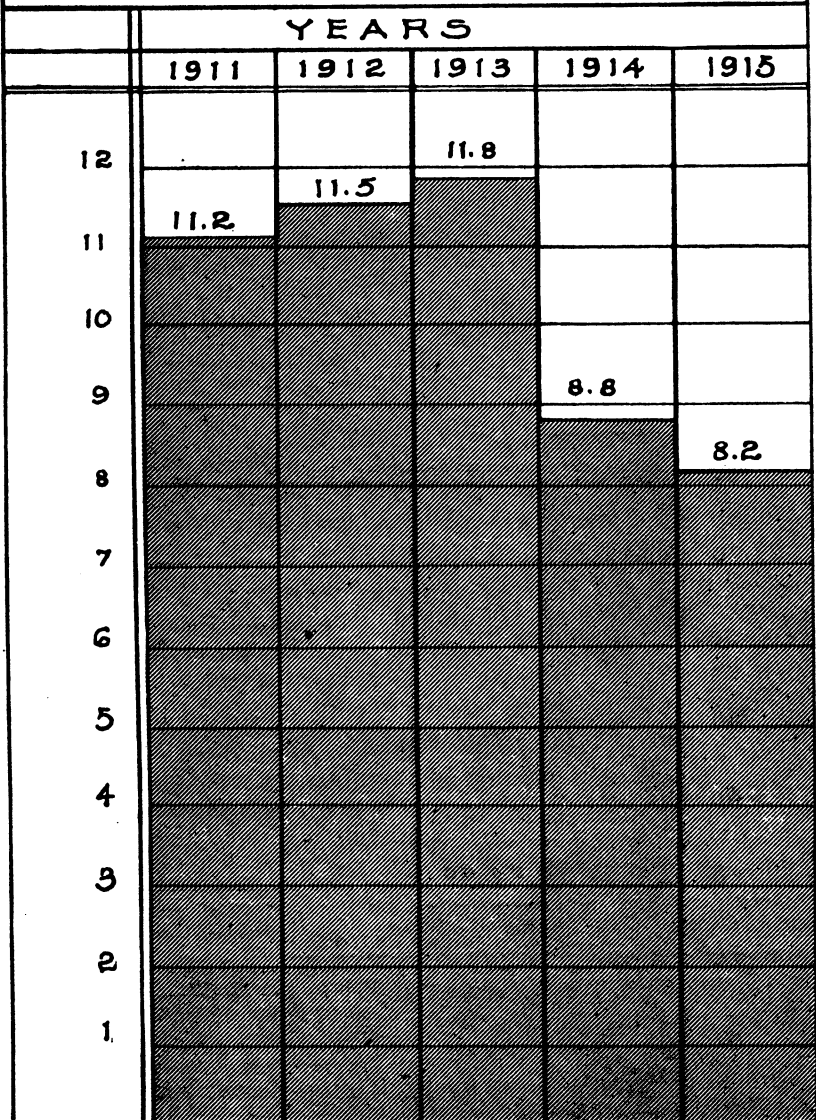
PHILIPPINE HEALTH SERVICE  
BILIBID HOSPITAL REPORT  
F.Y. 1915

GRAPHIC CHART  
COMPARATIVE DEATH RATE.



PHILIPPINE HEALTH SERVICE  
BILIBID HOSPITAL REPORT  
F.Y. 1915

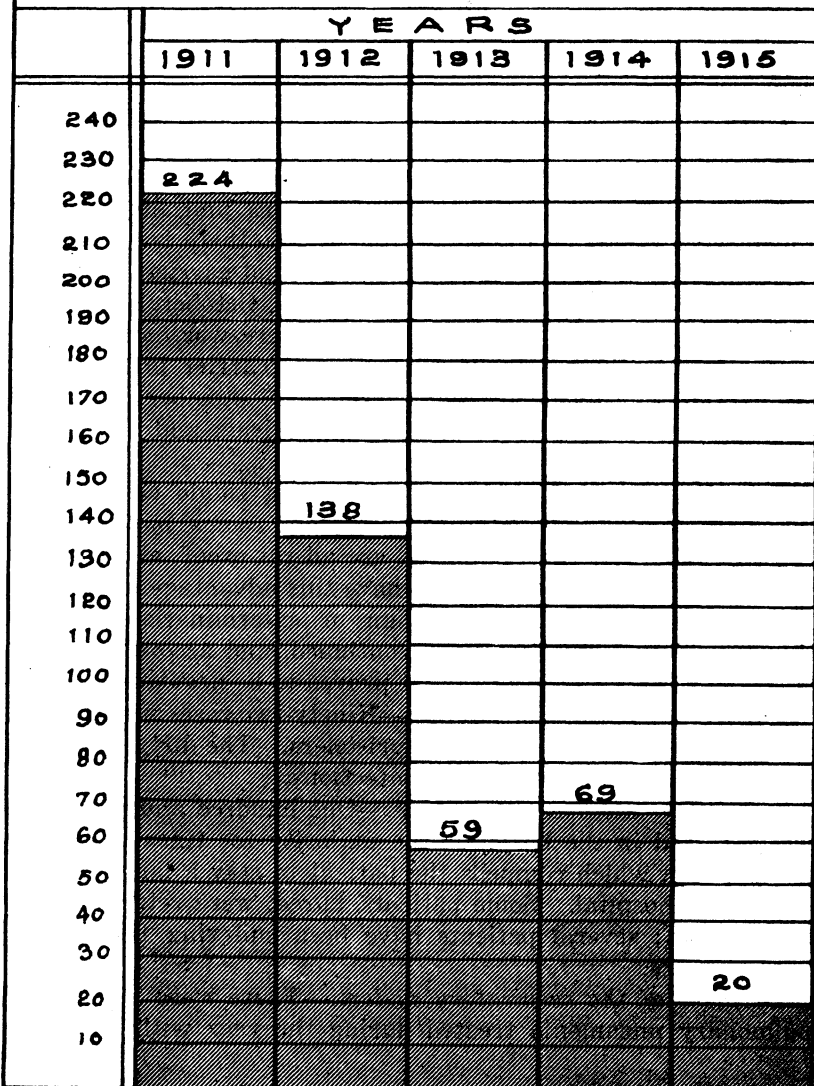
GRAPHIC CHART  
COMPARATIVE SICK RATE



PHILIPPINE HEALTH SERVICE  
BILIBID HOSPITAL REPORT  
F.Y. 1915

GRAPHIC CHART

COMPARATIVE NUMBER OF CONTAGIOUS CASES



riasis among the prisoners, the examination being made for both diurnal and nocturnal filaria, of which 143 were positive. One hundred and nineteen of these 143 positives were among the 4,005 new arrivals, and of these 119, one hundred and fifteen, or 2.87 per cent of the new arrivals, were males, and 4, or 0.10 per cent were females. None of these cases presented chronic symptoms of the disease, or the presence of microfilaria in the blood. There were 236 positive cases of filaria left in Bilibid at the end of November, 1915.

*Venereal diseases.*—Of the 1,088 new arrivals who were microscopically examined for gonorrhea, 91, or 8.36 per cent, were found positive; they were all sent to the pavilion for contagious diseases until complete recovery, and until the urine ceased to show gonococci.

Thirty-four cases of syphilis were treated in the hospital. Eighty-three serum reactions for syphilis were made, of which 51 showed positive results.

*Cholera.*—There was one case of cholera and fifty cholera vibrio carriers during the year, all of whom, there is foundation for believing, were the remnant of cases and carriers from the small outbreak in the month of September, October, November, and December, 1914. During the year there was one case and 47 carriers in the month of January, one carrier in February, one carrier in August, and one carrier in September. The last two carriers were found among new arrivals and the others among the prisoners.

*Bubonic plague.*—There has not been a single case of this infection during the year. The sleeping rooms built for the prisoner laborers, and the offices, are all rat-proof, although the other departments do not as yet have this advantage on account of lack of funds. The campaign of extermination of rats, through traps and poison, was continued, and according to the laboratory report, all rats caught proved to be negative.

*Contagious diseases of the eye.*—Ninety-two cases were treated and isolated from the rest of the prisoners. The dirty dust from the floor was the cause of these infections.

*Contagious diseases of the skin.*—One hundred and nine cases were treated in the hospital; the majority for tinea imbricata, an infection which compels the patient to stay a large number of days in hospital. Some patients, cured, were returned after a few days; several patients have been suffering from it for several years.

*Diseases of the respiratory system.*—There were 25 cases of pulmonary pneumonia treated during the year with 4 deaths;

1 case with 1 death of pulmonary gangrene; 50 cases of symptomatic asthma and 2 cases and 2 deaths of pulmonary abscess.

In the use of vaccine against pulmonary pneumonia, good results were obtained in 9 cases when it could be employed in the beginning of the disease.

*Drug habitués.*—Three hundred and thirty-nine morphine and 257 opium patients were treated in the hospital during 1915, as against 371 morphine and 283 opium habitués treated during 1914.

*Beriberi.*—Five cases were treated during the year, of which 2 developed the disease within Bilibid, and 3 outside.

*Tuberculosis.*—One of the diseases or causes of morbidity and mortality occupying the first rank within Bilibid is tuberculosis, which gave a total of 53 deaths, or 9.65 per 1,000. A number of tuberculous patients were transferred to the camp for this disease at Iwahig Penal Colony, but because of the restrictions of regulations, it is not possible to do this with every such patient. If the transfer of all tuberculous patients were practicable it would undoubtedly be possible to obtain more improvements and recoveries, not only on account of the open-air life which they would lead there, but because of the relative liberty they would enjoy.

*Contagious diseases.*—There was a total of 20 cases, excluding cholera, registered among the prisoners, such as measles, mumps, varicella and varioloid. A total of 12,150 vaccinations were performed. All sleeping rooms and workshops are frequently disinfected. All beds are also disinfected by steam or with chemical disinfectants, to exterminate bedbugs and other vermin.

#### SAN LAZARO HOSPITALS.

This hospital is divided into the departments for insane and lepers; pavilions for dangerous communicable diseases, including advanced cases of tuberculosis; a morgue, crematory, and steam laundry.

*Department for insane.*—There is a total of 299 inmates in this department; 248 males and 51 females. During the year covered by this report 156 insane were admitted, 87 discharged, 13 transferred or escaped and 52 died; the majority of cases discharged were either cured or improved. Nearly 200 of the total cases confined are included in the types known as melancholia, mania (melancholia-mania, manic-depressive insanity), and about 90 had different forms of dementia. The most frequent causes of death were terminal dementia, and tuberculosis,

other causes being nephritis, cerebral hemorrhage, general debility, arterio-sclerosis, etc.

An analysis made recently of 650 deaths and discharges in the insane wards of this hospital during the last five years, gave the results shown in the following table:

	Cured.	Im- proved.	Un- changed.	Died.	Total.
Mania, manic-depressive insanity, etc.....	63	111	28	43	265
Melancholia.....	13	25	2	7	47
Dementia, feeble-minded, etc.....	0	30	13	88	131
Paranoia.....	0	0	4	0	4
Epilepsy.....	0	0	3	0	3
Observation and miscellaneous.....	1	1	23	3	28
Opium habit.....	27	0	0	0	27
Alcoholism.....	161	0	0	4	165
<b>Total</b> .....	<b>265</b>	<b>167</b>	<b>73</b>	<b>145</b>	<b>650</b>

Cured and improved.....	432
Unchanged and unimproved.....	73
Died .....	145
<b>Total</b> .....	<b>650</b>

Among the female insane, those whose condition permits of an occupation, are employed in sewing clothing for other patients, while some occupy themselves in making mats, slippers and other articles, under the direction of a teacher.

The men work in the wards and gardens, and also at other manual labor.

*Department of lepers.*—Four hundred and sixty-five patients were admitted during the year, of whom 100 were discharged. There were 23 deaths, and 152 lepers were transferred to Culion.

Twenty-three patients coming from Culion were discharged, having been found negative for leprosy after repeated examinations. They were permitted to return home upon the condition of reporting themselves for examination, at periods of not less than six months, to the health officer of their respective provinces.

Two cottages were constructed during the year for negative and suspect lepers, one for men and the other for women.

The treatment of lepers with chaulmoogra oil is being continued by the resident physician, and other doctors having patients under their charge, with varying degrees of success.

*Department of advanced tuberculosis.*—During the year, 624 patients were admitted in this department, of whom 388 were discharged, 9 transferred, and 202 died. Throughout the year every patient was taken who applied for admission to the hospital.

*Department of dangerous Communicable diseases.*—Diphtheria has called for the most attention. During the latter part of the month of September and the beginning of October, 6 cases



of diphtheria were admitted, with 5 deaths, one patient being saved after a week or more stay in the hospital. All such deaths were caused by toxemia, nephritis, bronchopneumonia, and other complications.

The measure was adopted by the Philippine Health Service of hospitalizing all carriers, as the most rapid and rational means of preventing an epidemic from this infection. The largest number admitted to San Lazaro Hospital during any one day was on October 15, when 130 carriers were committed, and the largest number of carriers held there on any one day was 246, on the 21st of October. Among the carriers, more than 20, or about 4 per cent, presented symptoms of diphtheria (fever, pharyngitis, etc.) after admission to the hospital, but the prompt administration of serum succeeded in preventing the development of the disease and probably the death of many of the patients.

With the exception of a case of cholera, followed by death, on December 27, no case of this disease has been admitted to the hospital since July 4.

One hundred and two cases of measles were admitted with only two deaths.

One hundred and eighteen persons were admitted with vario-  
loid, with no deaths.

Among other diseases treated in this department were mumps, erysipelas, ophthalmia, tetanus, syphilis, etc.

Ninety cases of uncinariasis were admitted in this department, and given the thymol treatment with satisfactory results.

*Morgue; Crematory.*—Ninety-six autopsies were performed during the year and 42 bodies were cremated.

*Steam laundry.*—The steam laundry and disinfecting plant have been steadily at work during the year.

#### SOUTHERN ISLANDS HOSPITAL.

*General.*—There was an increase over 1914 of 45 per cent in the total number of patients; 39 per cent in the total number of cases of disease, and a 47 per cent increase in the number of prescriptions filled. The increase in other work was also marked but not quite so great. The increase in the cost of supplies, in consequence of the war caused an increase of 39.8 per cent in the average cost of subsistence.

*Clinics.*—Two new clinics were established during the year, a dental and an electro-therapy clinic. The former is well established under the direction of Dr. Gabriel Jureidini, D. S., and has filled a long-felt want. A survey of all the school

children furnished the clinic with plenty of material. The other new clinic is in charge of Dr. Mamerto Escaño, and when the necessary equipment arrives will be a valuable addition to hospital facilities.

The eye and ear clinic, under the direction of Dr. J. M. Linson, quarantine officer, is a large one, as is also the gynecological and obstetrical clinic under the direction of Dr. A. P. Villalon. Both these clinics have done very valuable work.

*Infant feeding.*—This work is done by the provincial nurses as a branch of the office of the district health officer, but it is made possible by money allowed by the Philippine Health Service and disbursed by the superintendent, Southern Islands Hospital. Since October, 1913, 236 children have been cared for by these nurses.

*Title to property.*—Owing to several complications, the Government has not yet acquired title to the hospital site, but as the matter has now been put in definite and concrete form, it is hoped that the ownership of the property by the Government is but a question of a short time.

*Recommendations.*—In order better to carry on the additional work which is daily becoming more heavy, the chief of the Southern Islands Hospital makes the following recommendations:

**Personnel:**

- (a) An additional interne.
- (b) That the title of the senior interne be changed to resident physician.
- (c) One additional clerk. With the increased hospital activity, the office work increases proportionately.
- (d) Two additional laborers for the grounds. At the present time it is difficult to keep the ground already improved in condition, and to develop any more is impossible; also, it is the intention of the chief of the hospital to set grass on the whole property as rapidly as possible.

**Buildings:**

- (a) A new building for the outpatient clinic is very essential. Plans have been submitted showing what is needed.
- (b) Two small buildings with concrete floors for use as contagious disease wards by pay patients.
- (c) Roofing the front and five other porches with a view to extending the hospital accommodations and giving the nurses and patients in private rooms, porches available for use in all weather.
- (d) Service building containing laundry, drying room, storeroom (the hospital is very short of store room space and at present one dining room is being used), morgue, bathroom with lockers, etc.
- (e) Permanent kitchen and dining room to replace the present light-material building.

**Ambulance:**

An ambulance which could be used also as the hospital market vehicle, (at present a vehicle is hired for ₱40 a month) is very necessary. Hardly a day goes by without the need for an ambulance being accentuated.

**CULION LEPER COLONY.**

*Construction work.*—The cement building for the isolation of bacteriologically negative lepers was completed on April 26, 1915. Twenty-three of the latter were returned to their homes on August 28.

A nipa shack was built to accommodate persons visiting their relatives in Culion, and additional nipa houses for colonists. A new septic tank was also built.

Preliminary work was completed for a new hospital which will have a capacity of 350 patients.

The breakwater is being filled in and the work on the road from the barrio Baldat to Unisan has been started.

A Chinese tienda has been removed as a possible focus of infection; the old camarin on the summit has also been removed.

Three houses, one for the children of lepers, one for Sisters of Saint Paul de Chartres on duty at the colony, and one for the chief of the colony, were projected during the year. The first is almost completed, and will afford a place of segregation for the more than 50 children born each year in the colony and exposed to infection. The house for the sisters will be completed within four months, and it is expected that the construction of the chief's residence will be begun very soon.

Drains were installed in Balala to carry off rain water.

Artesian wells are being drilled but until a good water supply is thus available, the water of Naglyian river will be used.

The houses for lepers have been repaired during the year.

Considerable repairs have been made in the houses built of soft woods over six years ago, and an iron roof has been put on the chaplain's residence.

*General.*—Canvas beds have been substituted for bejuco ones as being more satisfactory in cement buildings.

It is intended to make furniture at Balala which will be cheaper in cost than that brought from Manila.

It being plain that semiinvalids prefer to have some occupation, they have been employed, with compensation, in street cleaning, collection of garbage, repairs to buildings, manufacture of beds, etc.

More than 500 lepers have acquired lands outside of the colony

for cultivation, all of whom are working under the direction of an experienced man.

Biennial elections were held on December 16, 1915, for municipal offices.

During the year 1,500 lepers received the chaulmoogra oil treatment, with noticeable improvement in many cases, but no complete cure. Twenty-three lepers were released from Culion on August 28, 1915, after having been continuously negative for 2 years. The experiments made with the hypodermic injection of chaulmoogra furnished by the Bureau of Science have met with no success.

For about six months basic solutions of fuchsin were employed in the treatment of leprotic skin eruptions without success. A report of these experiments has been published in a recent number of the Journal of Science.

#### BONTOC HOSPITAL.

During the year 1915, a slight increase was noted in the number of cases treated in the hospital, compared with that of the previous year. This slight increase might be considered a triumph, considering the habits of these mountain people, who are averse to staying in a room for any length of time; who ignore the advantages of quiet in producing a cure, and who abhor all treatment which limits the usual quantity of their daily food. They much prefer to stay in their homes and enjoy the "cañao," which, as they say, is the best cure for their infirmities. The larger number of patients treated in the hospital were chirurgical cases and diseases of the skin.

During the year, and with the approval of the Secretary of the Interior, we succeeded in wire screening all the windows, doors and other apertures of the hospital, a measure which has preserved us from flies, which breed in alarming abundance in these heights, due to the habit of the Igorots of using garbage as manure for cultivating their lands. The whole hospital building received also a coat of paint, much improving its appearance.

By direction of the Secretary of the Interior a house of light materials was built, which is at present being used as a school for sanitary inspectors. There is an imperative need to build a pavilion of six beds for cases of tuberculosis. We are now using for this purpose a tent loaned by the Constabulary, and in rough weather we are compelled to transfer the patients to any available quarters in the hospital. The laboratory is now

properly equipped and its work is in charge of the senior surgeon of the hospital.

There were sporadic cases of typhoid fever during the year and some cases of paratyphoid among the pupils. Water was ordered to be boiled and carefully handled in the school, and each pupil was instructed to take a tablet of quinine for three weeks, and with these measures we succeeded in causing paratyphoid and malarial fever to disappear from among the students. Some few cases of varicella were isolated at the hospital, which prevented the spread of the infection.

During the year 14,874 patients visited the hospital clinics. It is expected that the number will continue to increase, demonstrating that the mountain people are becoming accustomed to seek rational treatment for their ailments by taking the medicines to their homes, although there are still some who object to remaining in the hospital.

#### BAGUIO HOSPITAL.

The number of patients treated at the Baguio Hospital during 1915 was about one hundred less than last year. This is probably due to the fact that there were great reductions in such diseases as measles, malaria, pneumonia, and other epidemic diseases, and this reduction is the effect of such preventive measures as education and sanitation. It will be noted that this reduction occurred during the first and second quarters especially, with an increase in the fourth quarter.

The number of female patients has greatly increased, especially among the Filipinos, and the number of maternity cases has almost doubled. By comparing the general character of hospital cases it will be found that the actual amount of work done was about the same as last year.

A point it is desired to make, is that the majority of cases admitted to the hospital were deserving of admission and many cases requiring very little attention which other hospitals would have admitted, were turned away because of the lack of room. In last year's report there was included a request for more space, either in the present hospital or in the proposed new building, and this request is heartily indorsed as one of great importance.

The number of visits to the hospital clinic, surgical dressings applied, and male Filipino patients treated, is less than last year but the total number of patients attending the hospital clinic is greatly increased, showing that the actual work done compares favorably with previous years.

## BUTUAN HOSPITAL.

Two hundred and forty patients were admitted as against 232 in 1914. Many could not be admitted for lack of room. A fee of ₱0.50 per day was charged for pay patients instead of ₱3 as charged previously. Twelve deaths occurred in the hospital during the year, or a mortality of 5.1 per cent as against 7.02 per cent for 1914. Most of the deaths were from malaria. Twenty major and 24 minor operations were performed. The cost of subsistence per person per day was ₱0.299, or 4 cents less than last year.

*Dispensary.*—Since June 12, 20 centavos has been charged for each prescription filled; still the attendance increases. It is advisable to have the dispensary installed in a building of its own providing sufficient room. The clinics are very well attended, and there are many obstetrical cases.

*Recommendations.*—The building of a new hospital on the site already acquired, with a capacity of 25 to 30 patients; separate wards for men, women, and children, and a sterilizing and operating room are recommended as prime necessities.

## DIVISION OF SANITATION, CITY OF MANILA.

## DANGEROUS COMMUNICABLE DISEASES.

The following tabulated report covering the principal communicable diseases occurring during 1915 in the city of Manila will give a good idea of the situation as regards those particular infections which, being more or less constantly present, have won the title of endemic in the local sanitary language:

Month.	Cholera.			Cholera vibrio carriers.			Plague.			Varioloid.			Varicella.		
	Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.	
		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.
January .....	18	14	11	54	54	—	1	—	—	—	—	—	3	—	—
February .....	27	20	11	3	3	—	—	—	—	—	—	—	5	—	—
March .....	32	27	18	13	13	—	—	—	—	—	—	—	23	—	—
April .....	7	1	1	5	5	—	—	—	—	—	—	—	19	—	—
May .....	4	—	—	—	—	—	—	—	—	—	—	—	11	—	—
June .....	6	—	—	—	—	—	—	—	—	—	—	—	4	—	—
July .....	10	2	1	4	4	—	—	—	—	—	—	—	—	—	—
August .....	5	1	1	4	4	—	—	—	—	—	—	—	10	—	—
September .....	5	—	—	1	1	—	—	—	—	—	—	—	13	—	—
October .....	—	—	—	1	1	—	1	—	—	—	—	—	17	—	—
November .....	2	—	—	—	—	—	—	—	—	1	—	—	4	—	—
December .....	2	2	1	2	2	—	—	—	—	2	—	—	—	—	—
Total .....	118	66	44	87	87	—	2	—	—	3	—	—	112	—	—

Month.	Diphtheria.			Diphtheria carriers.			Measles.			Typhoid.			Mumps.		
	Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.		Total reported.	Positive.	
		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.
January.....	5	4	2	12	12	---	2	---	---	9	---	3	---	---	---
February.....	5	2	1	---	---	---	2	---	---	4	---	7	---	---	---
March.....	4	4	1	---	---	---	2	---	---	7	---	5	---	---	---
April.....	5	4	2	---	---	---	2	---	---	9	---	9	---	---	---
May.....	7	6	3	---	---	---	10	---	1	5	---	4	---	---	---
June.....	5	3	1	---	---	---	2	---	---	9	---	14	---	---	---
July.....	9	6	5	2	2	---	3	---	---	17	---	10	---	---	---
August.....	3	3	1	6	6	---	3	---	---	4	---	8	---	---	---
September.....	5	4	3	11	11	---	2	---	---	10	---	10	---	---	---
October.....	11	7	3	602	602	---	17	---	1	10	---	11	---	---	---
November.....	9	8	---	41	41	---	21	---	1	15	---	15	---	---	---
December.....	8	8	1	12	12	---	32	---	1	8	---	7	---	---	---
Total.....	76	59	23	686	686	---	96	---	4	107	---	103	---	20	---

Commenting in general on the situation as shown by this table, a most gratifying feature is that, with the exception of diphtheria, it can be safely stated that all so-called endemic infectious diseases showed a well-marked tendency towards a reduction of the scope of their influence to the minimum limit.

#### CHOLERA AND CHOLERA VIBRIO CARRIERS.

If the subsidence of epidemics through yearly periods may be recognized from reduced incidence of clinical cases and reduced occurrence of carriers as compared with the total number of healthy individuals examined, the cholera figures for 1915 are most encouraging in comparison with those of 1914 and previous years. Thus we have:

	1914	1915
Cases.....	490	66
Deaths.....	272	44
Mortality (per 100).....	55.51	66.66

as for carriers, we have:

	1914	1915
People examined.....	37,160	10,440
Carriers found.....	530	43
Percentage.....	1.42	0.41

To attain those most promising results a number of measures were employed, a résumé of which is as follows:

- (a) Strict hospitalization of cases and carriers.
- (b) Full history of the origin of cases.
- (c) Eight-day inspection of contacts.
- (d) Investigation of hidden foci.
  - Cholera vibrio carriers.
    - Contacts-----{ Immediate.  
Distant (indirect).  
Hotels.  
Restaurants.  
Food tiendas.  
Others.
    - Food and drink hand-  
lers.
    - Dead bodies.
  - Missed cases-----{ Mild.  
Atypical.
- (e) Disinfection-----
  - Thorough disinfection-----{ Actual cases.  
Positive carriers.
  - General (only kitchens and  
closets).
    - Blocks of houses (usually 8)  
around cases and carriers.
    - Large interiors in nipa sections.
  - Special sewage disinfection-----{ Pumping stations.  
Public middens.
- (f) Supervision of foodstuffs and drinking  
water supplies.
  - Prohibition of fishing along the seashore (Ma-  
nila).
  - Supervision of drinking water in public places  
(license revoked in case water found contami-  
nated).

#### TYPHOID FEVER.

The number of 107 cases of typhoid fever given by the above table with a fatality of 103 does not at all represent an excessive mortality from the disease nor even the exact facts regarding the incidence.

The factors which directly contribute to the inaccuracy of these figures are as follows:

1. Lack of attention on the part of private physicians and hospitals to reporting live cases of typhoid.
2. The very few cases where an examination of the blood and urine (Widal test; diazo-reaction, etc.) are made. Cases are, in a large majority, diagnosed merely by clinical symptoms without resort to any laboratory assistance.
3. Reluctance of the public toward any notification to the Health Service for fear of hospitalization, disinfection and other sanitary measures.

*Comment.*—If typhoid fever be declared a dangerous communicable disease, not only notifiable but quarantinable in hospital as well; and if authority be granted to quarantine typhoid cases in hospitals other than San Lazaro or even in private households, provided a qualified physician is in attendance on the case, this physician to be held responsible for the notification and the proper enforcement of the required isolation, this office will be in better position to secure abundant and reliable information.

Under the present circumstances, it is not known what particular agencies are instrumental in the transmission of the dis-



ease as well as its perpetuation. While the well known bearing upon typhoid outbreaks of water supplies and the insanitary disposal of sewage has by no means been conclusively demonstrated in the city of Manila, where the water supply, as far as the municipal service is concerned, is constantly and efficiently watched, and while on the other hand there is no record of any special prevalence of the disease in poorly sewered districts, we have but the suspicion that the danger principally comes from occasional contact infection.

This suspicion would receive full confirmation, if among others, the fact could be established of a large number of typhoid carriers, but the data on hand are far from conclusive, as will be seen below:

#### TYPHOID CARRIERS.

The stool specimens examined were as follows:

Month.	From contacts.		Intestinal infection survey.	
	Specimens taken.	Found positive.	Specimens taken.	Found positive.
January .....				
February .....	12			
March .....	15			
April .....	46			
May .....	24			
June .....	12			
July .....	161		603	0
August .....	21		2,106	2
September .....	16		2,254	0
October .....	25		867	0
November .....	51		315	2
December .....	28		66	0
Total .....	411		6,201	4

#### INTESTINAL INFECTION SURVEY.

This work which was started in the second half of the year, had for its object the determination of the exact extent of "intestinal infection" of whatever kind (bacterial, protozoal or entozoal) as far as apparently healthy persons are concerned. The special sanitary character given to this work consisted in confining the scheme at the first, at least, to people who, if infected, could be most dangerous to the community from the fact of their being engaged in the preparation, handling or sale of food. Thus, hotels, restaurants, food tiendas, saloons, ice-cream parlors, etc., were given preferential attention, and in them cooks, kitchen boys, servants, waiters, tienda keepers and others were the subjects of examination.

## Intestinal-infection survey.

[Begun in July.]

	July.	Aug- ust.	Septem- ber.	Oc- tober.	No- vember.	De- cember.	Total.	Per- cent- age.
Specimens taken .....	608	2, 106	2, 254	857	315	66	6, 201	-----
Found positive .....	1	737	949	226	80	37	2, 080	32. 73
Ascaris .....		379	855	118	38	20	1, 110	17. 90
Hookworm .....		72	39	5	1	2	119	1. 91
Trichiuris .....		263	327	95	37	9	731	11. 78
Entamoeba histolica .....		11	19	3			33	. 53
Oxyuris .....		2	2		1		5	. 08
Strongyloids .....		6	6	5	1	2	20	. 32
Paratyphoid .....	1						1	. 02
Tinea saginata .....		1	1				2	. 08
B. typhosus .....		2			2		4	. 06
Amoeba coli .....						4	4	. 06
Monads .....		1					1	. 02

The largest figure among positive samples corresponds to ascaris, of which there were found 1,110 carriers, giving a percentage of the total number of specimens taken of 17.90. These 1,110 carriers were disposed of by simply excluding them from food and allied businesses and sending them to the health station free dispensaries where they could be given appropriate antihelminthic treatment.

Hookworm is next with 119 carriers out of 6,201 specimens collected with a percentage of 1.91. Although this entozoan does not follow the usual route of intestinal infection (alimentary tract) but finds its way into the human body through certain skin lesions (ground itch), it has been found necessary to confine the carriers in the hospital in order to have them properly and safely treated by the administration of proper doses of thymol, as through carelessness in attendance, the drug if administered in connection with oily or alcoholic admixtures, may prove rapidly fatal on account of hastened absorption. With the exception of a few of the carriers all of them were, during an average period of five days, entirely freed of the harmful parasite.

The 731 carriers of trichiuris have no significance at all in any survey on intestinal infection as trichiuris belongs to a well-known harmless group of parasites more often encountered in a condition of pure *comensalism*.

In regard to other kinds of infection, their degree of incidence in the table is so low as not to deserve particular discussion.

## SMALLPOX AND VARICELLA.

The only traces of smallpox infection in the city of Manila during 1915 consisted in a total of 3 cases (1 in November and

2 in December) of varioloid with no mortality, as was to be expected.

One hundred and twelve cases of varicella were registered during the same period with no deaths.

#### VACCINATION.

Notwithstanding the above-described condition of smallpox in the city, vaccination was, as usual, performed throughout the city with the purpose of securing the necessary protection for unprotected people against the possible importation of the disease from outside, as smallpox is known to be to a certain extent still present in certain provinces of the Archipelago.

The vaccination in the city is intended to cover the following groups of the population:

- (a) Unprotected infants one month of age or over.
- (b) Unprotected people of the city and elsewhere.
- (c) Public and private schools, colleges and institutions.

A tabulated summary of vaccination in the city of Manila during 1915 is given below:

Health district.	Vaccinations.	Inspections.	Positive.	Negative.
No. 1, Intramuros .....	8,685			
No. 2, Meisic .....	19,228	3,915	2,569	1,846
No. 4, Sampaloc .....	2,292	679	442	237
No. 5, Tondo .....	8,977	5,162	3,923	1,239
No. 6, Paco .....	9,406	3,768	1,697	2,071
<b>Total</b> .....	<b>48,588</b>	<b>13,524</b>	<b>5,631</b>	<b>4,393</b>

#### MEASLES.

This still continues to be a very mild infection in Manila, as is shown by an incidence of only 96 cases. The 4 deaths registered among measles cases were due to complications (bronchopneumonia) arising principally as a result of malnutrition in poorly cared for and poorly fed children.

Although in too few cases to permit of the drawing of a conclusion with reference to the exact extent of the association, so often encountered elsewhere, between measles and diphtheria, the rough fact at least of this association has been established by systematic swabbing of all cases of measles as presumptive carriers of diphtheria.

The special swabbing was made in 55 cases of measles during November and December with the result that 5 diphtheria carriers were discovered among them, which figure, for the time covered by this report, gives a percentage of 9.09.

## DIPHTHERIA.

During the last few days of September, 5 cases and 4 deaths from diphtheria occurred.

This fact in itself does not bear much significance from the standpoint of the epidemiology of the disease. It was, however, in the large number of carriers (11 in all, constituting 24 per cent of the total number of contacts) that room was first found for the strong suspicion that the sporadic but constant appearance of cases of diphtheria might possibly be explained by perpetuation of a certain strain of diphtheria bacilli through the agency of numerous carriers.

This fact, however, plus the relationship discovered between two of the most typical cases and a probable infection of the schools, where the prevalence of the disease is a feature ordinarily met with in all countries where diphtheria exists, led to a comprehensive survey of diphtheria carriers directed to the detection of same among exposed people in private households and principally in the schools and other institution. A tabulated report of the facts which followed this survey is given as follows:

*Diphtheria survey.*

OCTOBER, 1915.

Health district.	Schools.		Households.	
	Swabs taken.	Positive diphtheria carriers.	Swabs taken.	Positive diphtheria carriers.
No. 1, Intramuros .....	1,486	163	310	16
No. 2, Meisic .....	468	55	493	39
No. 4, Sampaloc .....	26	.....	221	30
No. 5, Tondo .....	112	16	153	16
No. 6, Paco .....	1,355	241	450	44
Total .....	3,436	475	1,607	145

Swabs taken from school contacts..... 3,436

Swabs taken from household contacts..... 1,607

Total ..... 5,043

	Num-ber.	Per cent.
Carriers found in schools.....	475	13.82
Carriers found in private households .....	145	9.92
Total .....	620	12.29

*Diphtheria survey—Continued.*

NOVEMBER, 1915.

Health district.	Schools.		Households.	
	Swabs taken.	Positive diphtheria carriers.	Swabs taken.	Positive diphtheria carriers.
No. 1, Intramuros .....	398	9	77	2
No. 2, Meisic .....	167		193	4
No. 4, Sampaloc .....	0		28	1
No. 5, Tondo .....	185	21	92	1
No. 6, Paco .....	622		16	
Total .....	1,372	30	406	8

Swabs taken from school contacts.....	1,372
Swabs taken from private household contacts.....	406
Total .....	1,778

	Num-ber.	Per cent.
Carriers found in schools.....	30	2.18
Carriers found in private households .....	8	1.97
Total .....	38	2.13

DECEMBER, 1915.

Health district.	Schools.		Households.	
	Swabs taken.	Positive diphtheria carriers.	Swabs taken.	Positive diphtheria carriers.
No. 1, Intramuros .....	2	1	57	3
No. 2, Meisic .....			10	1
No. 4, Sampaloc .....			24	1
No. 5, Tondo .....			16	3
No. 6, Paco .....			3	2
Total .....	2	1	110	10

Swabs taken from school contacts.....	2
Swabs taken from household contacts.....	110
Total .....	112

	Num-ber.	Per cent.
Carriers found in schools.....	1	50.00
Carriers found in private households .....	10	9.00
Total .....	11	9.82

From the data tabulated above and after an attentive study of the situation the following facts were disclosed:

1. A percentage of 9.64 of diphtheria carriers found among exposed but otherwise healthy people both in schools and private households, can only be regarded as excessive in comparison with an average of 3 per 100 reported in the current incidence of the disease in New York and other cities of the United States.
2. The special significance of this excessive number of carriers as regards:
  - (a) The perpetuation of a certain strain of diphtheria bacilli in Manila by means of uncontrolled carriers;
  - (b) The special importance of this number of carriers as an eloquent indication of an actual or closely threatening epidemic.
3. The high proportion of virulent cultures taken from carriers, amounting, according to a report rendered by the Bureau of Science, to 35.71 per 100. The test of virulence was performed on, and caused the death of, guinea pigs in 3 days.
4. The fact as shown by a report of the medical officer in charge of San Lazaro Hospital, that out of 602 carriers hospitalized not less than 22 (3.65 per 100) developed systems of diphtheria of varying severity. This observation tends to indicate the possibility that actually harmless diphtheria bacilli in healthy carriers may assume a higher degree of virulence, and then cause the development of clinical symptoms.
5. That this serious condition of affairs made it imperative to employ energetic measures as represented by the extensive taking of swabs from suspicious or exposed people, and strict hospitalization of all cases and carriers; this for the reason that the house isolation of the people as affected would afford very little, if any, safety in such a country as the Philippines, where in the average case neither the construction of the houses nor the close and affectionate intimacy among the members of a family would warrant dependence upon any form of house isolation or quarantine. The total number of people hospitalized (cases and carriers) on account of diphtheria during 1915 was:

Filipinos .....	781
Americans .....	16
Europeans .....	7
Japanese .....	3
Total .....	<hr/> 807

The distinct benefits derived from the above outlined campaign against diphtheria are as follows:

- I. The awakening of the public conscience and that of the practising physicians to the existence and the markedly increasing prevalence of, and the varitable and actual danger from, diphtheria.
- II. The conviction that any tentative efforts to cure diphtheria by drugs or surgical operations before sending cases to hospital are not only absolutely fruitless, but actually harmful.

III. The better knowledge of the situation with the corresponding early recognition of the cases was closely followed by prompt and efficient isolation and early antitoxic treatment of the cases. As a confirmation of the above the following table is given:

Month.	Diphtheria incidence.	Death rate per 100.
	<i>Cases.</i>	
September.....	4	75
October.....	7	42.85
November.....	8	00
December.....	8	12.50

Only cases confirmed bacteriologically included.

*Disinfections in the city during the year 1915.*

Bubonic plague suspected .....	1
Carbuncle .....	2
Cholera .....	40
Cholera suspected .....	73
Cholera vibrio carrier.....	55
Dengue .....	2
Diphtheria .....	67
Diphtheria suspected.....	21
Diphtheria bacillus carrier.....	514
Dysentery, bacillary.....	8
Enteritis, tuberculous.....	1
Erysipelas .....	4
Glanders .....	4
Horse glanders.....	2
Leprosy .....	103
Leprosy suspected.....	14
Measles .....	74
Meningitis, tuberculous.....	35
Mumps .....	17
Paratyphoid .....	1
Pleurisy, tuberculous.....	1
Pneumonia .....	8
Pneumonia (post mortem diphtheria).....	1
Puerperal septichaemia.....	2
Purulent ophthalmia.....	1
Tetanus .....	41
Tuberculosis .....	715
Tuberculosis suspected.....	1
Typhoid bacillus carrier.....	2
Typhoid fever.....	112
Typhoid fever suspected.....	3
Varicella .....	40
Varioloid .....	60
Whooping cough.....	67
Whooping cough pneumonia.....	3
Whooping cough (post mortem cholera vibrio carrier).....	1
Insanitary conditions (miscellaneous).....	39,443
Total .....	41,545

## SUPERVISION OF WATER SUPPLIES.

As far as the municipal water supply is concerned, the situation continues to be as satisfactory as could be expected. The reasons for this conclusion may be seen in the following facts:

1. Thorough and careful cleaning from time to time of the water reservoir, and regular treatment of water by the calcium hypochlorite method.
2. Daily biological examination to detect contamination by the colon group.
3. The ease with which intestinal infections are now being controlled, as would not be the case with water-borne outbreaks.

The true origin of the poor quality of drinking water as found in a large proportion of institutions and public places (restaurants, tiendas, private schools, etc.) is shown by experience to exist in the careless and unclean manner in which water is handled and stored. Thus, instances are not infrequently met with where with such a comparatively small bacterial count per c. c. as 1,000 or 3,000 the presence of colon bacillus is plainly verified as a striking evidence that soiled fingers or articles had had access to such water within a short time after its having undergone a thorough process of sterilization.

As this makes the problem of obtaining a safe supply of drinking water in public establishments exceedingly difficult, all efforts have been directed during the latter part of the year toward securing a reasonably fair supply of drinking water in a majority at least of the public establishments.

Following is a table showing the results of the biological examinations made of a total of 304 samples of water from different public places during 1915:

Health station.	Samples examined.	Bacterial count.			Presumptive test.	Positive for—				Samples unfit drinking.	Percentage unfit for drinking.
		10, 000 and over.	100, 000 and over.	1, 000, 000 and over.		Bacillus coli.	Amoeba.	Flagellates.	Ciliates.		
No. 1, Intramuros.....	49	44	5	-----	21	16	16	15	2	23	46.93
No. 2, Meisic.....	337	253	84	-----	125	120	71	103	47	125	37.69
No. 4, Sampaloc.....	207	171	36	-----	100	75	55	37	32	100	48.30
No. 5, Tondo.....	123	88	27	7	101	96	24	77	75	101	82.11
No. 6, Paco.....	88	84	4	-----	30	29	17	16	18	41	46.59
Total.....	804	641	186	7	377	336	183	248	174	390	48.50

Fines imposed: District No. 2, ₱170; No. 4, ₱687; No. 6, ₱35; total, ₱842.



## MOSQUITO AND FLY EXTERMINATION.

From a recent survey of the swamp and low lands existing in the city of Manila it has been found that such insanitary areas embrace a total of 9,203,124 square meters, to which, as at least a possible source of nuisance (breeding of mosquitoes), a rather inadequate force (1 sanitary inspector, 9 assistant sanitary inspectors, and 20 laborers) is assigned for the immediate though temporary relief and protection if the people in the vicinity. Taking this into consideration, as well as the very limited funds appropriated for the work (₱35,000 per year), it is surprising that such results as are outlined in the table below were satisfactorily accomplished:

Houses inspected during the year.....	106,842
Houses where breeding places were found.....	23,822
Breeding places found in houses.....	28,686
Vessels on private premises ordered emptied or removed.....	19,117
Drains on private premises ordered cleaned.....	27,162
Lineal feet of drains ordered dug.....	12,301
Square feet of grass ordered cut.....	2,063
Breeding places on private premises oiled.....	98,454
Breeding places on public property oiled.....	98,585
Water receptacles overturned.....	18,228
Cans of crude oil used.....	7,674.5
Number of sanitary orders issued pertaining to mosquito and fly work .....	4,304
Insanitary conditions reported to health stations.....	286
Complaints attended to.....	150
Fines imposed:	
₱15 each.....	1
₱10 each.....	1
₱5 each.....	65
₱3 each.....	18
₱2 each.....	28

## PLAGUE INSPECTION.

The year 1915 has been exceptionally free from any trace of plague infection except in so far as the following cases of rat infection were concerned:

June 29, one suspicious rat was reported at 227 Calle Solis, Health District No. 5, Tondo; not confirmed.

June 30, one suspicious rat was reported at 28 Interior, Palomar, Health District No. 5, Tondo; not confirmed.

June 30, one positive rat was reported at 362, Interior, Calle Solis, Health District No. 5, Tondo; confirmed bacteriologically.

These three rats were caught by traps, and were the only

ones showing evidence of infection out of a total of 83,439 rats killed during the year.

These traces of infection, no matter how slight, led the Service to promptly lay special stress upon the usual antiplague measures among which thorough cleaning and rat-proofing of sanitary (rat-harboring) premises, extensive rat catching and poisoning as well as disinfections, were prominent.

No further cases of rodent infection developed.

The year was absolutely free from any form of human plague.

The antiplague operations during the year are summarized as follows:

Rats caught by—	
Spring traps.....	67,672
Wire traps.....	248
Poisons .....	903
Dogs .....	46
Clubs and other weapons.....	14,018
Rats found dead from other causes, probably poisoned.....	552
<b>Total .....</b>	<b>83,439</b>
Sanitary orders—	
Issued .....	1,506
Completed .....	1,487
Canceled .....	2
Suspended .....	3
Awaiting action.....	14
Refuse removed from infected district (loads).....	69
Complaints attended to.....	198

#### RAT POISONING AT LARGE.

In an effort to reduce as far as possible the rat population in Manila and, as well, to locate the so-called plague carriers among rats (as chronic forms of infection are customarily termed) two extensive rat-poisoning campaigns were undertaken during the year 1915.

While the exterminating effect upon the rat population cannot be accurately figured but only presumed from the fact that rodents generally migrate long distances as soon as they begin to feel the effects of the poison, it is a most encouraging feature in both campaigns not to have discovered even the slightest trace of infection among the poisoned rats, few as they are, nor in the more numerous group of those killed by traps, clubs, or other weapons, except as above specified.

First poisoning, May 13 to June 14 (entire city):

Houses where poison was placed.....	28,373
Poison baits placed.....	322,273
Average number of baits per house.....	11.3
Amount of poison used (kilos).....	1,289.8

## First poisoning, May 13 to June 14 (entire city)—Continued.

Baits per kilo.....	250
Rats found during period <sup>1</sup> .....	3
Other animals reported dead due to poison—	
Dog .....	1
Pig .....	1
Dog (not killed).....	1

## Second poisoning, August 15 to September 21 (north bank of Pasig only):

Houses where poison was placed.....	23,943
Poison baits placed.....	480,057
Average number of baits per house.....	20
Amount of poison used (kilos).....	1,920
Baits per kilo.....	250
Rats found during period <sup>1</sup> .....	382

## CLEAN-UP WEEK.

The annual "Clean-up Week" scheduled for the year 1915, from December 13 to 18 has been most successfully observed in accordance with the following instructions from this office to all medical officers in charge of city health stations as pointed out in Circular N-112, which reads as follows:

[Circular N-112.]

CLEAN-UP WEEK, DECEMBER 13 TO 18, 1915.

PHILIPPINE HEALTH SERVICE,  
MANILA, December 4, 1915.

*To medical officers in charge of the districts, city of Manila:*

During the two weeks beginning December 6, medical inspectors are directed to discontinue temporarily the routine inspection of houses and premises, and to have the attention of the assistant sanitary inspectors devoted within his subdistrict exclusively to the points detailed in the following schedule. As the spirit of "Clean-up Week" is coöperation, the remedies for any undesirable conditions found shall be tactfully explained and verbal instructions issued for the immediate correction thereof.

Inspection books shall not be used for this work.

Schedule for the first four days, December 6 to 9, inclusive:

Water:

1. Drinking water:
  - (a) Kind of water used;
  - (b) Means of purification;
  - (c) Condition of containers.
2. Improper storage of water:
  - (a) Jars;
  - (b) Pails;
  - (c) Tanks;
  - (d) Cisterns;
  - (e) Wells; etc.;

(Open and accessible to mosquitoes).

<sup>1</sup> No effort was made to collect poisoned rats as they were properly disposed of by people who were instructed to include them in the house refuse.

Water—Continued.

3. Mosquito breeding places:

- (a) Rain water or waste water stagnated on account of faulty drains and canals;
- (b) Lacking or unused plumbing fixtures;
- (c) Cesspools;
- (d) Septic vaults;
- (e) Eaves gutters;
- (f) Trees;
- (g) Bamboo structures;
- (h) Pools and irregularly leveled lands;
- (i) Empty bottles;
- (j) Empty tin cans, etc.

Schedule for the four days, December 10 to 14, inclusive:

Keeping of fly animals:

1. Stables:

- (a) Lack of water supply for cleaning purposes;
- (b) Insufficient air;
- (c) Faulty pavements (not impervious);
- (d) Defective drainage.

2. Improper containers for:

- (a) Horse feed;
- (b) Droppings (manure);  
(Receptacles for both should at all times be kept covered with well fitting lids to exclude rats and flies).

3. Pigs, chickens, dogs, cats, etc.:

- (a) No loose pigs to be permitted in house, yards, or vacant lots;
- (b) The allowance by the Revised Ordinances of two pigs per house must be construed to require the provisions of sanitary accommodations.
- (c) In no case must they be permitted in any apartment of a tenement house.
- (d) The general policy with pet animals is that they may be tolerated in so far as they are not excessive in number and so badly kept as to create a nuisance.

Schedule for the four days, December 15 to 18, inclusive:

Cleaning:

1. General and thorough cleaning of premises:

- (a) Houses;
- (b) Tenement houses;
- (c) Lodging houses;
- (d) Hotels;
- (e) Restaurants;
- (f) Tiendas;
- (g) Dairies;
- (h) Bakeries;
- (i) Places where food or drink is manufactured;
- (j) Bars and saloons;
- (k) Meat markets and cold stores;
- (l) Barber shops;
- (m) Laundries;
- (n) Morgues and undertaking establishments;

## Cleaning—Continued.

## 1. General and thorough cleaning of premises—Continued.

- (o) Dance halls;
- (p) Theaters and cinematographs;
- (q) Stables;
- (r) Offensive and dangerous businesses;
- (s) Other buidings and vacant yards or lots.  
(Prohibit dry sweeping.)  
(By carelessly spitting once you may cause a hundred deaths.)

## 2. Proper disposal of refuse:

- (a) Provide regular separate receptacles for garbage, rubbish and manure and keep them perfectly covered after each use.
- (b) Do not allow any refuse to be scattered; collect it carefully in the receptacles.
- (c) Most important: Never forget to place at night the refuse receptacles on the sidewalk for collection by the night carts.  
(Stale garbage given off most offensive odors and favors the development of flies.)

## 3. Sewage disposal:

- (a) Inspection of all kinds of closets and urinals, with orders for repairs as well as for correct maintenance.
- (b) Explicitly prohibit throwing of fecal matter or urine into canals, drains of any description, and water courses.

Upon completion of this clean-up work, a classified numerical report is desired showing the number of inspections made, the undesirable conditions found, and the number which were remedied.

J. D. LONG,  
*Director of Health.*

In spite of the fact that the division made a rather liberal allowance of time for the work to be done (December 6 to 18 instead of December 13 to 18), it was found that an average of not less than 15 days was necessary to obtain the best results as may be seen in the following table:

*Clean-up work, 1915.*

Health district.	Places found insanitary.				Insanitary conditions corrected.				Employees.	Days spent.
	A.	B.	C.	D.	A.	B.	C.	D.		
No. 1, Intramuros .....	671	443	385	738	582	343	341	702	9	14
No. 2, Meisic .....	437	315	477	1,531	437	315	477	1,527	14	19
No. 4, Sampaloe .....	1,765	254	298	2,076	861	205	227	1,772	7	25
No. 5, Tondo .....	431	247	902	1,208	89	225	747	1,181	15	14
No. 6, Paco .....	696	130	59	295	537	107	47	256	6	6
Mosquito and rat extermination .....	1,851	753	539	3,748	978	506	294	2,449	45	12
Total .....	5,851	2,024	2,660	9,596	3,484	1,701	2,133	7,887	-----	-----

(A) Improper handling of drinking water.

(B) Mosquito breeding places.

(C) Domestic animals.

(D) General cleaning.

Average number of inspections per man per day..... 13.09

Average number of insanitary conditions corrected per man per day..... 10.5

## HOUSE-TO-HOUSE AND NUISANCE INSPECTION.

The usual house-to-house inspection as well as the inspection of nuisances have caused the issuing of the following orders and recommendations for sewer connection, during the year 1915:

Health district.	Garbage can orders.	Station orders or miscellaneous.	Recommendations for sewer connections.
No. 1, Intramuros.....	2,661	69	32
No. 2, Meisic.....	2,261	146	120
No. 4, Sampaloc.....	555	273	35
No. 5, Tondo.....	829	136	10
No. 6, Paco.....	974	175	17
Total.....	7,260	799	214

## DIVISION OF SANITATION IN THE PROVINCES.

## ORGANIZATION.

When this division came into existence with the reorganization of the Philippine Health Service on July 1, 1915, it found 36 health districts in operation, 30 of which comprised the 31 regularly organized provinces, 5 consisted of special provinces, and 1 of the Provinces of Agusan and Bukidnon, separated for purposes of health administration from the Department of Mindanao and Sulu. Besides the district health officer in charge of each district, the Mountain Province had five subdistrict officers.

There are various types of local sanitary organization. The original type, provided for in 1901 by Act No. 308, consists of a municipal board of health of which the president and executive officer is to be a physician, if one is available, or an undergraduate in medicine or other suitable person, when no physician is to be had. In most towns in which a local health organization was formed under the provisions of this Act, the board soon ceased to exist except in name, its president, however, continuing to serve as local health officer. It was soon found that a large proportion of the municipalities of the Islands were unable to obtain physicians for this position on account of the salary limitation attached, and to remedy this situation, as well as to extend larger inducements to physicians to settle in provincial towns, Act No. 1613 was passed, authorizing a group of neighboring towns to unite in securing a president of health, each town paying a portion of his salary, but remaining otherwise independent, each of the others, in health matters. Groups organized under this provision are known as municipal health districts.

The next step in advance was the passage of Act No. 2156,

enacted in 1912, authorizing provincial boards to divide their provinces, into groups of towns to be known as sanitary divisions, each division to become effective upon approval of its formation by a majority of the municipalities comprised therein. This type of organization is supported by a provincial health fund made up of contributions from the province and the various municipalities. Each municipality is required to vote not less than 5 per cent nor more than 10 per cent of its general fund as a contribution to the health fund, the province contributing normally an amount equal to the total of the municipal contributions. Under the provisions of this Act, a better grade of sanitary service than they had had previously was introduced into approximately 200 towns, and medical attention which had not until then been available, was brought within the reach of their inhabitants.

While Act No. 2156 was an enabling Act only, Act No. 2468, in reorganizing the Bureau of Health into the Philippine Health Service, contained provisions making the organization of sanitary divisions obligatory, without altering their internal organization or the way in which they are supported.

At the date of the reorganization, 8 provinces had already voluntarily organized themselves into sanitary divisions to the number of 67, comprising 201 municipalities, while 17 municipalities were not included, 16 of these having no organization, and 1 (Iloilo) maintaining its own board of health. In the remaining provinces there were two sanitary divisions with 8 constituent municipalities, 22 municipal health districts comprising 56 municipalities, 62 municipal boards of health with qualified physicians as presidents, and 44 in which this position was held by a cirujano ministrante. Eighty-five municipalities had a sanitary inspector who performed such of the duties of a local health officer as were within his capacity; in 88 the municipal president acted in addition to his other duties, and 208 were entirely without sanitary personnel. In résumé, approximately 55 per cent of the provincial towns were without the elements of a good sanitary organization.

The district health officers generally, acting under instructions, had already prepared and submitted plans and estimates for the reorganization of their respective provinces. The total number of sanitary divisions proposed in these plans was 252, averaging a little under three towns each. It at once appeared, however, that almost all of the local governments, both provincial and municipal, had appropriated their entire probable income for the year, and that there was nothing left for their contributions to the health funds. This was due to the fact that their

estimates are made in the early part of the year, while the new law went into effect only on July 1. Only two additional provinces were able to organize. Occidental Negros took the necessary steps immediately, but owing to the lack of qualified men in the province it was necessary to secure most of the presidents of the sanitary divisions from outside, and several months passed before the last of the positions was filled. Pampanga had some difficulty in meeting the financial outlay involved, but was able to put the reorganization into effect on September 1st with a complete personnel, the presidents of municipal boards of health who were qualified being appointed as presidents of the sanitary divisions.

The effort to extend the organization was continued without relaxation and, with the loyal support of the district health officers, directed now to procuring that as many provinces as possible should put it into effect at the beginning of the new year. Almost every one of the provinces remaining had a financial problem to be solved; there were ways and means to be studied, and many points in connection with the provisions of the law to be explained, all entailing a large volume of correspondence. Nevertheless at the close of the year, the Tarlac organization was ready to go into effect on January 1, all details having been completed, even to making the necessary appointments; assurances had been received that Batangas, Leyte, and Zambales would be organized shortly, while it appeared probable that Cagayan, Laguna, Misamis, Rizal, and Samar might still be included.

In the remaining provinces there seems to be no possibility of effecting the organization during 1916. A number of them, according to statements of the provincial treasurers, are facing deficits, or have already incurred heavy fixed term obligations or are carrying overdrafts, and in several it would appear that a term of years will be required to arrive at a satisfactory financial basis. There is a disposition on the part of some to let health matters go in ordinary times, and to depend upon this service when the inevitable result appears in the form of an epidemic, and on that of others to treat the health budget with much less liberality than those of other branches of governmental activity, and to scan it first when the need for retrenchment arises. It has frequently been necessary to object to the abolition of a sanitary inspector's position for which the reason of a reduction of expenses was advanced, in municipalities in which no other attempt at economy was evident, and one province which had a good health organization threw it bodily over board about two years ago in endeavoring to avoid financial shipwreck. The



protection of the public health is as essential a part of the functions of government as is the preservation of public order or the prevention and punishment of crime, but this conception has not yet thoroughly permeated the public conscience, of which governmental activities are but the reflection. Meanwhile, the legal obligation of the provincial and municipal governments to make provision for a health fund at the earliest possible moment must be insisted upon. The budgets of those provinces and municipalities which have not yet done so, should be carefully scrutinized for possibilities of economy, and no province or municipality should be allowed to undertake any new project which would interfere with its duty in this regard or in any other way to increase its expenses, until it has first fulfilled this obligation, and it is strongly recommended that His Excellency, the Governor-General be urged to issue instructions in this sense.

#### DISPENSARIES.

One of the normal functions of the sanitary divisions is to bring professional medical assistance within the reach of the poor by the establishment of free dispensaries. Besides the relief they afford to the sick and suffering, they constitute centers from which modern teachings in regard to the causes of disease and the manner of its prevention, and instruction in hygiene and sanitation are disseminated. It has always been customary for the local health officers, whatever the type of the sanitary organization, to attend as far as possible the medical needs of the poor in their respective jurisdictions. Five provinces are now provided with fully stocked dispensaries in each of the towns included in the organization, with additional ones in the more important barrios, and in these regular weekly consultation hours are observed by the division physicians. Forty dispensaries in the Province of Tayabas and 59 in Bulacan were newly opened during the year. In four other provinces the towns, while not provided with full dispensary stocks have simple remedy packages of the more elaborate sort, the contents of which are dispensed by the local health officer or by a sanitary inspector under his direction. In 17 provinces, a dispensary is maintained at the provincial capital under charge of the district health officer. Provincial sanitary inspectors are usually equipped with simple remedy packages, and frequently go into the field, especially in those provinces which have no local organizations and malaria is prevalent, well provided with quinine. Thousands of cases of malaria have been treated in this way in the Mountain Province, Nueva Vizcaya, Ambos Camarines, Mindoro, Palawan, and Agusan.

## NURSES IN THE PROVINCES.

In addition to those employed in the hospitals, 16 nurses form parts of various provincial health organizations. They have assisted in the operation of dispensaries; have been in the field in epidemics of typhoid, dysentery, and malaria, and have done excellent work both in the care and prevention of these diseases; they have talked in the schools on hygiene; have rendered valuable service to the coming generation in the instruction of expectant mothers, and actual care of cases of confinement, but the most extensive and far-reaching part of their work has been that devoted to talks on and demonstrations of proper methods of feeding and caring for babies, and instruction in good house-keeping and home sanitation. Both in the immediate direct benefit to the child and in the indirect improvement of the home surroundings, the condition of which affects the entire family, this work has been productive of great good. The district health officers are alive to the importance of this work and emulous to introduce it into their organizations in so far as financial possibilities will permit, and it is certain that the new year will see a considerable increase in the number of nurses employed.

## PROVINCIAL LABORATORIES.

The causes of dangerous communicable disease are all of microscopic size and progress in the science of sanitation has largely been achieved by looking through a microscope. The health officer who has no laboratory facilities at his disposal is most seriously handicapped in his efforts to prevent the spread of these diseases, as the effectiveness of the appropriate special preventive measures depends to so large a degree upon the promptness with which they are applied, and this in turn upon an early diagnosis which frequently cannot be had without laboratory methods. Indeed the most effective measures which can be taken against some of the most dangerous of the dangerous communicable diseases, are the detection and isolation of those apparently healthy persons who nevertheless are carriers of the respective organisms, and here the detection is entirely a laboratory procedure.

Until this year, there were no laboratories outside of Manila except in connection with various hospitals, and the remainder of the provinces, a large majority, were without these facilities. Their usefulness and the great need existing for them, was brought to the attention of the provincial boards with a request in each case for the appropriation of the comparatively small sum required for their establishment. Only essentials were in-

cluded in the list of equipment specified so as to make up an outfit which, while containing everything necessary for efficient work, should cost as little as possible and be compact and portable, so that, in case of need, it could be taken into the field. A ready response was received from nine provinces and a favorable attitude expressed by many more in which funds for the appropriation were not at the moment available.

A part of the plan was to bring each district health officer to Manila for a short course of instruction in laboratory methods, especial attention to be paid to the bacteriological diagnosis of cholera, the examination of blood for leprosy and malaria, the agglutinations for typhoid fever, the examination of sputum for the diagnosis of tuberculosis, and of stools for the detection of intestinal parasites. Six district health officers and one president of a sanitary division took this course which was given by the Bureau of Science in its biological laboratory.

#### CHOLERA.

The epidemic which was present in central and southern Luzon during the latter part of 1914 from La Union to Tayabas, hung on with reduced virulence during the early months of 1915 in Pampanga, Rizal, Cavite, La Laguna, Batangas, and Tayabas, finally being extinguished in April.

During the remainder of the year, five isolated outbreaks occurred, in none of which could any connection with other foci be traced, although in one of them a probable relation may be guessed. Barrios along the southeastern coast of Mindoro had been affected in the latter part of 1914. From this locality there is frequent communication by means of small native sailing craft with the northwestern extremity of the island of Panay where the epidemic appeared in May, 1915, in the town of Buruanga, Capiz. The infection here had a considerable start of the measures for its control due to slow transmission of reports and to the fact that through inadequate laboratory facilities, specimens examined in Capiz were reported as negative, giving rise to the belief that the trouble was a simple gastroenteritis. There was a spread in June to Ibajay, Capiz, and to Pandan, Antique, from which later the towns of Culasi, Tibiao, and Lawa-an became infected. The last cases occurred in the Capiz towns in August, and in those of Antique in November.

In May and June there was an outbreak in the island of Lubang, belonging to the province of Mindoro; and in July, one in Bacnotan, La Union, which spread to the neighboring town of San Juan, and to San Gabriel, a township just across the boundary of the Mountain Province.

In the latter part of August when the only cholera known to exist in the provinces was that in the northern towns of Antique. Dr. A. M. Saleeby, medical examiner for the Hawaiian Sugar Planters' Association, reported two cases of cholera bacillus carriers in laborers recently arrived in Manila from such widely separated points as Anda, Bohol, and Sarrat, Ilocos Norte. The respective district health officers were at once warned to make a search for possible cases, and to be on the lookout for an outbreak. Nothing was found in either district but a month later, on October 1, cases appeared upon the heels of the fiesta of Jagna, Bohol, in that and four neighboring towns. The first few cases were all persons who had attended the fiesta. No new territory was infected after the first few days of the outbreak, control was promptly effected, and the last case in this province was reported on November 23.

In the province of Cebu one case occurred in Carcar on November 27, and one in Cebu on December 11. The first case was shortly after the Carcar fiesta. Cultures taken immediately showed eight of the contacts and neighbors of this case to be carriers of the cholera bacillus. No carriers were found associated with the second case. The taking of cultures was continued in both towns and also in Barili, adjoining Carcar, and more carriers were found, 25 in all out of 237 examinations made, besides which, out of 61 dead bodies examined, all from other causes than cholera, 9 yielded positive cultures.

Of these five outbreaks, that in Cebu was handled entirely by the local organization; small squads of sanitary inspectors were sent to the assistance of the district health officers of La Union and Bohol, the direction of the campaign being left in the hands of the officers; only in the cases of Lubang and Antique was it necessary to send a medical officer to take charge, with a squad of sanitary inspectors under his command in the case of Lubang, because there was no local organization; in that of Antique, for the reason that the provincial organization was too weak to cope with the situation.

A comparison of the history of the Cebu outbreak with that of those in Bohol and La Union, both promptly reported, and efficiently handled, is a most complete demonstration of the necessity of providing all the provinces with laboratories. The measures taken in the latter districts, consisting of house quarantine of cases and contacts, disinfection, burying of excreta, wholesale hand washing with disinfectant solutions, and protection of water and food, had necessarily to be applied to all who were under suspicion of being dangerous to the health of the public. In Cebu, it was possible to point out through the

results of laboratory examinations just those persons who were harboring in their intestines bacteria dangerous both to themselves and the public, and to limit the measures taken to such persons, so that they were at the same time less onerous, less expensive, and more effective.

#### TYPHOID.

The opinion has been held that typhoid is of recent introduction into the Philippines, and that it might possibly have been introduced here by American soldiery. As information accumulates, however, this view is becoming more and more untenable. There are numerous instances in medical history in which communicable diseases have been conveyed into countries or regions where they had not previously existed, and in each such case the newly introduced disease has assumed a form of extreme virulence, has spread with great rapidity, attacking large percentages of the total population, and has been accompanied by fatalities in a much larger proportion than in those regions where it was an old acquaintance. These phenomena do not occur in connection with typhoid in the Philippines. The cases reported are scattered over a wide area and do not occur in epidemics except infrequently and those of very limited numerical importance, and the severity of infection does not appear to be greater than in the United States.

The statistics of the disease are very incomplete; approximately two thousand deaths per year are attributed to it, while the number of cases reported is only slightly in excess of those terminating fatally. It is very noticeable that, as a rule, the town where there is no physician reports no deaths from typhoid. Each death is usually calculated, in the United States and Europe, to represent ten cases, but it is very doubtful if this proportion, in a disease in which the outcome of the individual case is so largely determined by the skill or lack of it with which it is cared for, will hold in a country where skilled nursing care has only recently begun to be available. The death rate here is probably nearer 20 or even 25 per cent than 10, so that the approximate number of two thousand deaths will represent from eight to ten thousand cases per year, in addition to which an allowance of at least 50 per cent must be made for cases in towns where no diagnostic skill is available.

#### BACILLARY DYSENTERY.

The importance of this disease as affecting the public health of the Islands is exceeded only by that of malaria and tuberculosis. It is endemic in almost all parts of the Philippines,

and annually assumes the epidemic form in a number of localities shortly after the beginning of the rainy season. Fortunately, the outbreaks do not show the same tendency to spread in a geographical sense as does cholera, being usually localized. However for several years past, a larger total of deaths have been attributed to dysentery than to the other principal water-borne diseases, cholera and typhoid fever, combined, without distinguishing in the returns between bacillary and amoebic dysentery. It is safe to say, notwithstanding, that all of the epidemic outbreaks, and a considerable proportion of the endemic cases, are of the bacillary form. It attacks principally children of tender years, local epidemics having been observed in which a majority of the victims were from two to five years of age, with progressively fewer deaths for each additional year, and in which ten years was the upper age limit. It occurs in exactly inverse proportion to the supply of a good quality of potable water, and adequate provision for the disposal of excreta. Epidemic outbreaks do not occur in districts in which artesian wells are numerous, and the endemic cases become fewer as the sources of good water are multiplied, and sanitary closets are provided. Thus the outbreak in Atimonan, Tayabas, occurred at a time when the pump of the only artesian well was out of commission; in Boac and Mogpog, when ordinary wells usually satisfactorily protected had recently been flooded with surface of water. Those in San Miguel de Mayumo, Bulacan, and in numerous towns in Occidental Negros, Pangasinan and Zambales were in the barrios where unprotected wells are the principal source of domestic water supply.

#### SMALLPOX.

Approximately 6,000 cases with 204 deaths were reported in the province of Samar, nine municipalities being affected. Next in number of cases came Leyte with 133 cases and 9 deaths, in six municipalities. Sixty-six cases with 3 deaths occurred in Cebu province; localized outbreaks occurred in Cajidiocan, Romblon; Dinagat, Surigao; and Ilagan and Santa Maria, Isabela, with 23, 35, and 8 cases, respectively, and there were a few sporadic cases in other localities.

The situation in Samar was not as serious as the number of cases stated would indicate. The large majority of them were reported from towns on the east coast of the island, and were seen only by laymen not competent to make the diagnosis, often difficult for medical men, between smallpox and allied infections less severe and less dangerous. The presence of a few cases

of true smallpox accompanied by some varioloid, and a much larger number of persons affected with chickenpox, against which vaccination does not protect, while it is often clinically indistinguishable from varioloid, the modified form of smallpox, would inevitably lead to all of these cases being lumped together as smallpox.

Considering the high death rate of true unmodified smallpox, it must be estimated that not less than 90 per cent of the cases reported were either varioloid, or chickenpox, and such proportion of them as were varioloid, owe their escape from an attack of virulent smallpox to the fact that they had been at least partially protected by vaccination.

General vaccination has been carried out twice in this district, but the percentage of ineffective vaccinations from lack of potency of the virus, on account of difficulties in transportation and the delays arising therefrom in delivering it, is comparatively large, and routine semiannual vaccinations have not been thoroughly kept up, on account of lack of organization in these remote towns, resulting in a constant small increment to the unprotected population. The only remedy for this state of affairs is persistence in vaccinating and revaccinating, which has always been the policy of the Service. Vaccinators have been kept at work in the infected districts throughout the year.

It is worthy of remark here that the old custom of inoculation of smallpox, long prohibited by law in the Philippines, was found to have survived in this district. One offender in this regard was prosecuted and convicted.

#### MALARIA.

This continues to be the most serious problem in public health work in a number of provinces, notably Samar, Leyte, Mindoro, Palawan, and Agusan. The mountain Province, Ilocos Norte, Cagayan, Isabela, Nueva Vizcaya, and the Bicol provinces are also severely affected, and of the more advanced provinces, Pampanga, Laguna, and Tayabas have had to make special efforts this year to combat the disease. In Mindoro, Palawan, Nueva Vizcaya, Agusan, and the Mountain Province sanitary inspectors were regularly equipped with quinine which they distributed freely, and in the last mentioned province they were detailed to accompany levies raised for the purpose of fighting locust. In Mindoro, an illustrated placard showing the life history of the mosquito and the method of transmission of malarial infection, with instructions as to how to avoid it, was posted in every barrio, supplemented by oral instruction given by the district health

officer and his subordinates. An educational campaign was conducted in Pampanga, Laguna, and in Tayabas the entire force present in the Tayabas-Lucban road camp was quinized, besides requiring the use of mosquito nets, and attacking the insects in their breeding places. In a severe outbreak in Albay and Camarines, besides those treated in the dispensaries, sanitary inspectors were sent out with quinine to find the sick. The district health officer of Sorsogon personally treated 400 cases, and in Samar, two Insular sanitary inspectors were kept in the field for a number of months. A fever reported as decimating the agricultural colony near Abulug, Cagayan, when investigated, resolved itself into malaria which attacked a majority of the members of the colony with one or two deaths. In Agusan, a zone 200 meters in width was required to be cleared around every settlement, as a protection against mosquitoes.

The sale of quinine through the municipal treasurers, while continued, has not given the results expected. Either through lack of instruction as to its virtues, or of means with which to purchase it, even at the low price at which it was offered, a large number of the sick did not avail themselves of the opportunity, and the amount of quinine distributed gratis was several times in excess of that sold.

The eradication of malaria is difficult, but only on the economic side. It has been successfully carried out on the San José estate in Mindoro, at a cost, according to data furnished by Doctor Daywalt, relatively insignificant among the expenditures of a financially powerful corporation, but which, should the same methods be attempted by municipalities, would absorb almost the entire revenue of more than half of the number. Some progress will be made every year, but the final solution of the problem will only come as a sequel to economic development, unless we can carry the educational campaign to the point where every householder, understanding the role of mosquitoes in the transmission of malaria, undertakes and accomplishes their destruction upon his own premises.

#### RABIES.

The enactment during the 1914-1915 session of the Legislature of a law empowering the Director of Health, with the approval of the Secretary of the Interior, to designate those localities in which rabies or hydrophobia was in his judgment a menace to the public health and to prescribe the muzzling of dogs and other animals liable to convey the disease, or their effective restraint by other suitable means, was followed by the collec-



tion of data from all parts of the Islands. When information had been secured from practically all of the provinces, it was found that during the two years from July 1, 1913, to June 30, 1915, 200 known cases of rabies in dogs and 13 registered deaths of human beings from this disease had occurred. There were doubtless many more which were not reported, but in making up the statistics every supposed case which was not confirmed either by laboratory examination of the brain of the dog for negri bodies, or by the death of the person bitten, was carefully excluded. Further cases have since been reported, besides numerous cases in which persons bitten by dogs which were positive for negri bodies, were saved by the use of the Pasteur treatment.

Upon this information, a notice was prepared in accordance with the terms of the law, the opinion of the Attorney-General first being had upon the draft of the notice which was then slightly amended to meet his criticism, and was admitted for the approval of the Department head in December. Its approval and enforcement after due publication are expected shortly.

#### WATER SUPPLY.

The understanding of the value of a supply of good potable water has become so general in the provinces, and the movement to obtain it has gained such momentum in most localities, that little further external impulse is believed to be needed, except in a few of the more isolated and backward communities. The Health Service will still find it necessary to furnish guidance and technical advice, but the larger portion of the energies formerly devoted to the propaganda for improved water supplies may now be diverted to other problems the solution of which is further off.

Three gravity water systems of considerable importance have been opened for use during the year; the Singson waterworks at Vigan; the Apacible works at Taal, Batangas; and the system for San Pablo, Laguna. Santo Domingo de Basco in the Batanes Islands has also been provided with a gravity system. Thirty other towns have either made arrangements to begin the construction of gravity systems, or are actively seeking ways and means to do so.

One hundred ninety-nine new artesian wells have been added to the large number already in operation, and it is noticeable that many communities which have one or a few wells are striving to increase the number, indicating that a small supply of good water is the most effective argument in favor of providing more.

## SOIL POLLUTION.

A prime requisite for efficient sanitation is the safe disposal of human excreta. To devise a method which while fulfilling the requirements of sanitation, should be sufficiently low in cost for the average householder to be able to install it, has occupied the attention of the health organization for years. It is obviously impracticable, in a country where the cost of constructing the average home is somewhere between ₱50 and ₱150, to require the addition of closet facilities of the kind used in more advanced countries, the expense of which would be two or three times the cost of the house to which they are to be attached. An attempt was made some time ago to generalize the use of the pail system, and it was adopted in a considerable number of the more progressive municipalities as regards their urban sections, and in most of these, as well as in a few others in which it has been adopted during the past year, it is still in fairly satisfactory operation. In one town, Lingayen, Pangasinan, the system became the sport of local politics and was abandoned. It is, however, frequently difficult to secure personnel for the repulsive work of collecting, dumping, and cleaning the pails, and any part of the system from the pail closet to the pit where final disposal is made, may easily become a nuisance if there is the slightest relaxation of sanitary precautions or lack of intelligent supervision.

A rough and ready method of disposal consisting simply of a pit in which the body wastes were deposited and covered with earth or lime had been introduced in many places during past years as an emergency measure in connection with the suppression of a cholera epidemic. This was satisfactory while a daily house-to-house inspection was made by a trained sanitary inspector who saw that the material deposited was properly covered, but was neglected as soon as the inspectors were withdrawn after the termination of the outbreak and speedily became insanitary, especially by serving as a breeding place for flies.

From this pit developed, in Antipolo, a closet in which the pit was tightly covered with slabs of stone or with stout boards carrying a layer of concrete. They were provided with a galvanized iron pipe for ventilation and with a fly-proof seat from which a larger pipe led vertically down to the pit. Investigation of closets of this type which had been in operation for one or more years, made by the members of the sanitary commission while working in Pasig, showed that it afforded the most satisfactory means of disposal yet found. The contents were thoroughly decomposed, all offensive matter having disappeared, and there was no nuisance from odors or flies. As

the cost of the materials necessary is less than ten pesos, it is adapted for general introduction in the rural districts of the Islands, and plans for a campaign to this end are now under way. It is recommended for the ordinary dwelling, but not for public buildings, where the large number of persons using it would soon produce an overload.

Much progress has also been made in this matter in another direction. The central districts of Cebu and Iloilo are now well provided with modern plumbing connected to septic tanks, and similar facilities are being installed in numerous private residences in various towns of Bulacan and Batangas, in Vigan, and a few in other places. To have one's home provided with the most modern plumbing installation, is becoming fashionable in the more progressive towns and will soon become the hall-mark of good social standing. The municipal buildings of Malolos and Calumpit, Bulacan, have been provided recently with the same class of facilities, and public toilets have been constructed in Bacolor, Pampanga, in Calumpit in connection with the market, and in one of the barrios of Malolos.

The construction in the past of large permanent markets and handsome concrete school buildings with no provision for this hygienic and sanitary necessity, has constituted a grave anomaly. During this year, however, an agreement has been secured by virtue of which Insular assistance by loans or otherwise, will be granted for such construction only upon the condition that adequate facilities of a modern sanitary type are to be included in the plans and specifications of each building constructed.

The effects of this arrangement, which, however, have not yet begun to show, in addition to the immediate sanitary benefit obtained, will be far-reaching beyond calculation in the education of the rising generation, who will continue the sanitary habits inculcated during their period of school life, in their future homes. When this has come about, the nightmare of water-borne epidemics and the economic inefficiency due to intestinal parasites will have disappeared.

#### SANITARY CONTROL OF FIESTAS.

The "fiesta," which is a time-honored institution in the Philippines and the principal event in the yearly history of each town, and which combines religious celebration of the patron saint's day or a pilgrimage to some venerated shrine with many features analagous to those of a county fair, has often been the occasion of an outbreak of dangerous communicable disease. The crowds which gather at these events are likely to contain persons recently exposed to infection or contagion, and some

of the large quantity of foodstuffs which are brought in, are sure to have been contaminated. There is a tendency to excess in eating, and an indigestion thus brought on may afford just the opportunity for the development of a case of cholera in a person harboring the organisms of this disease in a quiescent state. Twice during the past few months, at Jagna, Bohol, and at Carcar, Cebu, cases of cholera have occurred in territory in which there was no previous evidence of infection, immediately following the "fiestas" and in persons who had attended them, and from Jagna the infection spread to four other towns and cost 31 lives.

The pilgrimage to Antipolo in May and June of each year is the most important of these events, as the estimation in which the shrine is held, a mildly stimulating climate, and ease of access, bring to it a large number of people drawn from a wide area, but especially from the city of Manila. On account of the lack of resources of the municipality, Insular assistance has had to be extended each year in maintaining sanitary conditions during the two months of the pilgrimage. The assistance given this year consisted of the loan of sanitary pails, and the assignment of the necessary personnel to supervise their use and the sanitary regulations in general. On its part, the municipality established a temporary garbage collection system and passed an ordinance under which nearly every house in the town was provided with a closet on the locally developed model.

In Obando, Bulacan, at which the fiesta crowds only remain three days, by coöperation between the municipality and the provincial health organization, public convenience stations were established, thorough inspection as to compliance with regulations for the protection of food and water was carried out, and street cleaning provided for.

It was shown in these instances that it is possible by making proper sanitary preparation for a fiesta, to conduct it in such a manner that its celebration will be in no way prejudicial to the public health. On the contrary, the sanitary installations provided, and the precautions taken will have an educative value. Municipal authorities are, however, frequently unwilling to make such provision, even though their cost is small, and it is manifestly impossible for Insular aid to be granted on each and all of these occasions. For this reason, the assistance of the Executive was invoked and obtained. The municipal authorities have been instructed that failure to make the necessary sanitary arrangements in advance of the fiesta will be considered a neglect of duty.

## CLEAN-UP WEEK.

A large share in the preparation and direction of the activities of this period was placed upon the health organization. In nearly every case, the district health officer was an active member of the provincial committee and the presidents of sanitary divisions and municipal boards of health of the local committees. A number toured their respective territories twice, one in propaganda for its thorough observance and again as a member of the jury of awards or for the purpose of forming their own impressions as to how instructions had been carried out. Their reports indicate that periodically directing the attention of the entire community to improving the condition of its surroundings is a great help to their ordinary work and some of them indicate a desire to have it come oftener. In several provinces bad weather interfered seriously, and suggestions as to a change in the date were made.

## BETTER BABIES CONTEST.

The first competition of this nature in the Philippine Islands was held at Pasig, Rizal, on December 20, under the auspices of the Public Welfare Board, the initiative being taken by Mr. Henry S. Townsend, division superintendent of schools. In preparation for the provincial competition, a preliminary contest was held in each municipality in the provinces and in about half of the towns, an officer of this Service acted as official scorer. In each of six classes, divided by sex and age, each town was entitled to be represented at Pasig by its finest specimen of babyhood. Over a hundred babies were presented in the finals at Pasig.

## SANITARY COMMISSIONS.

A broad, comprehensive study of health conditions in the provinces has long been needed. A vast amount of good work has been done and much improvement has resulted therefrom, but the kind of work done has been dictated by the exigencies of the moment, and a somewhat patchwork character is seen in the results. The needs in general are well known, the general principles to be applied are thoroughly understood, but the details of their application to each locality, the direction in which each community must make its principal effort, still remain to be worked out. It will not be sufficient to say to the people of a locality, such and such conditions exist; they must be shown how they can be remedied, and where the remedy involves work of an engineering nature, the showing must in-

clude carefully prepared plans and estimates. Even this is not going far enough; backwardness in economic development and in sanitation are so clearly associated that it will be necessary to show them how the projects can be financed.

Upon these considerations was the first sanitary commission organized, consisting of a medical officer, a bacteriologist and a sanitary engineer. Its instructions were to investigate in each locality the prevailing type of disease which are factors in morbidity and mortality, and the conditions which favor their spread; the prevalence of intestinal parasites; to study methods of improving local water supplies sewage and garbage disposal, housing conditions, town location, and drainage; and to report practical plans for improvement ready to be put into operation as soon as funds would allow. The finances of the municipality were also to be studied as well as the economic status of the community so as to be able to point out means whereby the latter might be improved, and the former increase its revenues.

This first sanitary commission began work in the town of Pasig, Rizal, in July. To it were added later, nurses for public health nursing work and a dietist for instruction of the people in the preparing of a balanced diet from materials locally available, it being well known that the ordinary diet of the Filipino is unbalanced, being deficient in proteid and fat, and that this lack of balance is a considerable factor in the low resistance to disease.

A thorough investigation was made of the mortality of the town covering a period of several years, while the temporary establishment of a free dispensary afforded an opportunity to compare the statistics obtained with the extent and kinds of existing disease. A coördinate study of local conditions, drainage, water supply, waste disposal, personal habits, popular customs, industries, and economic development was made.

As the last official census of Pasig was taken in 1903, it was felt that it was necessary to take a new one upon which to base reliable statistics as well as to show gains made in the twelve years intervening. The census was also made to cover housing conditions, kind of water used by each family for domestic purposes, and the facilities of each house for waste disposal. It was shown that there had been a growth from 11,278 which was the population in 1903, to 14,762 found in 1915. Of the increase of 3,484 inhabitants, only about two-fifths is accounted for by the natural increase, i. e., the excess of births over deaths, the respective average annual rates being 44 per thousand for births and 33.3 per thousand for deaths.

In the death rate, based upon the population found by the census, there was a constant fall during the years 1910 to 1913 inclusive, from 39.29 per thousand in 1910 to 28.18 per thousand in 1913. In 1914, there was an increase in the rate to 36.64 per thousand, almost altogether accounted for by a larger number of deaths among infants, there being only a very slight increase in the deaths at higher ages. It was found that for the five year period, 40.84 per cent of all the deaths were in infants under one year of age, and that the deaths among infants were 31.80 per cent of the births.

There was a close correspondence between the most important causes of death, and the ailments which affected the largest numbers among those treated at the clinic. Thus the most frequent cause of death among adults was pulmonary tuberculosis which was also the disease oftenest seen in the clinic. Infantile beriberi was the cause of the largest group of deaths among infants, and 10 per cent of a large series of women in the child-bearing period were beriberic. Infections of the air passages other than tuberculosis, and gastrointestinal infections were prominent both in the mortality records and in the attendance at the clinic.

The census showed 3,244 dwellings within the limits of the municipality, with an average number of occupants of 4.55. Two thousand five hundred nineteen, or 77.65 per cent, of these dwellings were of bamboo and palm thatch construction with not more than two rooms. It was ascertained that 3,932 persons, 26.6 per cent of the population, were obtaining water for domestic purposes from sources which might be considered fairly satisfactory. These sources include artesian and other tubular wells, springs, and stored rain water. The remaining 73.4 per cent, 10,830 people, were using water from unsatisfactory sources, rivers and surface wells, found upon bacteriological examination to be, in the majority of cases, highly polluted, as was indicated by the bacterial count, reaching in one instance, 89,600 per cubic centimeter, and by the presence of colon bacilli in a majority of the samples.

Two artesian wells were put down in Pasig shortly before the arrival of the commission and a large flow was obtained. A distributing system has been projected and money appropriated for its construction. When this is completed, a much larger proportion of the people will be supplied with a good potable water.

Seven houses, with 88 occupants, were provided with flush toilets connected to septic tanks, 79 houses with 428 people, with

privies on the Antipolo model, 5 with 150 people had a pail system, and 30 with 161 people, had pits over which privies were built. That is, only 5.5 per cent of the population and 3.7 per cent of the dwellings had methods of body waste disposal which, if properly cared for, meet the minimum requirements of sanitation. One thousand houses with 4,479 occupants had an unsatisfactory method consisting merely of an open pit without superstructure, and the remainder, 2,125 houses, with 9,456 people had no provision at all or at best merely a screened plot of ground. There is, of course, a direct connection between the lack of proper means of disposal of body wastes, and the pollution of surface water supplies.

No complete map of Pasig could be found, so that it was necessary to survey a considerable part of the town in order to provide one. On this, streets, water-courses, wells, principal buildings and drainage conditions were located. The layout of the town leaves much to be desired. It may be compared to a bunch of strings knotted together, the knot corresponding to the center or "población" from which the main provincial road and several neighborhood lanes, narrow and crooked, lead off in various directions. Along each of these run two long lines of houses closely packed together, so that sunlight and ventilation are interfered with to a considerable extent. Two of these lanes follow either side of an estero which is always foul on account of the refuse and filth thrown into it and its shallowness and usually sluggish current. With the exception of one or two in the central district, and the provincial road which also serves as a street, being lined with houses for a distance of several kilometers, the streets are not well provided with drainage. Mudholes, which serve as breeding places for mosquitoes, are frequent.

The site of the town on a low level plain is not favorable to the prompt disappearance of storm water and but little provision has been made for drainage. The result is that the soil, through saturation with water becomes almost marshy during the rainy season.

A study of the existing garbage collection system, which serves only the more central barrios, amounting to 34 per cent of the population, was made. It was found that the average daily amount of refuse and garbage collected was 6.5 liters per house, the cost per house per month being about 15 centavos. No receptacles are provided; the material being simply placed in a pile near the street line of each lot to await collection, and being often scattered again by domestic animals. Plans and estimates



for a complete collection system to be extended to all the barrios, including the provision of receptacles were prepared.

Insanitary housing conditions in Pasig consist principally in soil pollution from want of closet facilities, dampness due to lack of drainage around and underneath the houses, and insufficient distance between them. The principal objection to the interior arrangement of the average house is that it does not provide separate sleeping rooms for the various members of the family. In order to improve these conditions, it was decided to construct a model sanitary house provided with toilet and bath, well arranged, and situated in a well-drained yard. Measurements were taken and cost data obtained on a number of average-sized houses and the plan and estimate were based upon the information thus obtained. A site was secured on a corner of the provincial high school grounds. The type of construction adopted was that prevalent in San Pablo, Laguna, known as "sasag" which is both more resistant to fire and less conducive to dampness than the customary nipa thatch.

The style of closet decided upon as the result of the commission's investigations was that common in Antipolo and popularly known as the "Antipolo" model. A modification proposed by the commission is to drain the "pusalian," or collection of dirty water under the kitchen, into the pit, thus disposing of an additional nuisance while furnishing water which will accelerate the septic action taking place.

Pasig could be much improved by straightening and widening existing narrow and crooked streets, by the opening of a new one approximately parallel to a long section of the provincial road, and dividing the heavy traffic on it. Others should be constructed providing direct and shorter communication between the center and outlying barrios, and additional building sites should be regularly laid out so that the now closely packed houses could be provided with larger and better arranged yards. All of these possible improvements were indicated on a copy of the map, and it is hoped to induce the municipality to adopt the plan as the one which the future development of the town will follow.

Upon investigation and study it was decided that the best method of correcting the nuisance caused by the Parian estero would be to fill it up.

The economic condition of the town was not overlooked. It was found that the rice fields which now produce an annual crop valued at about ₱240,000, could be irrigated and made to yield two crops per year, besides a further probable increase on

account of independence of weather conditions. The principal manufacturing industry of the town is pottery, which could be much improved by organization, especially coöperative construction of firing kilns, and coöperation in disposing of the product. These opportunities were thoroughly explained to the residents.

In addition to giving assistance to the clinic by making laboratory diagnoses, the bacteriologist of the commission determined the extent and character of contamination of water supplies, and locally produced milk, made an interesting study of the bacteriology of mothers' milk, and carried on an intestinal parasite survey.

Of 1,036 persons examined for intestinal parasites, 94.69 per cent were found to be infected with one or more kinds. The principal infections were hookworm, 11 per cent, ascaris, 65 per cent, entamoeba, 4.72 per cent. Forty-six and ninety-five hundredths per cent had double, 13.56 per cent triple, and 1.02 per cent quadruple infections.

About midway of the commission's stay in Pasig, a duplicate set of officers was placed with them for training, and upon completion of this first survey, a second commission was formed and sent to Antipolo, the original one transferring to Parañaque. These surveys had not been completed at the end of the year.

#### OFFICE OF SANITARY ENGINEERING.

During the year, 501 orders were issued in the city of Manila; 3,235 building projects were acted upon, and 452 premises connected with the sanitary sewer. A tabulation of the routine work performed in the city is appended hereto.

In view of the protests against the plan of enforcing the placing of sidewalks in front of new buildings and additions to buildings at the time of their construction, the following agreement with reference thereto was finally entered into between the representatives of the property owners, the department of city engineering, and the Philippine Health Service:

1. Conditions under which sidewalks will not be required:

(a) No orders for sidewalk construction will be issued by the Director of Health except for sanitary reasons.

(b) Sidewalks will not be required as a prerequisite to the repair of existing structures where the value of the repair work does not exceed in any one year 50 per cent of the intrinsic value of the structure.

In the construction of the new buildings and additions to existing buildings sidewalks will not be required:

(c) In sanitary barrios provided with open cement-lined street canals, except as provided for in section 2 hereof.

(d) When the approved line of sidewalk falls on private property

the expropriation of which is not approved by the city, except for sanitary reason.

(e) Whenever no new sidewalk line has been established, and the existing sidewalk is satisfactory in the opinion of the city engineer and the Director of Health.

(f) On streets 5 meters or less in width. In such cases concrete drainage only will be required.

2. Conditions under which arrangements for sidewalks will be required:

(a) In the construction of new buildings and additions to existing buildings, provided that this section shall not apply unless the value of the proposed construction or addition is at least twice that of the sidewalk that would be required, except in the construction of new buildings and additions to existing structures intended or liable to be used for commercial purposes such as tiendas, restaurants, barber shops, stables, garages and buildings for public gatherings.

#### LIMITATIONS AS TO LENGTH OF SIDEWALK.

The length of sidewalk, adjoining a property with a frontage longer than 20 meters, shall be equal to the frontage of the house plus 2 meters on both sides of same within the limit of property.

The matter has not yet been settled, awaiting legal decision as to whose duty it is to construct the sidewalks—the city or the property owners.

In the provinces the following are some of the principal projects handled during the year:

*Culion*.—(a) Quarters, nonleper children of leper parents; (b) quarters, Sisters of Charity; (c) quarters, chief of colony; (d) pavilion, parents of nonleper children; (e) pavilion, dividing line, lepers and employees; (f) septic tank, two-story sedimentation type; (g) Location and construction of highways; (h) Plans of a building to house lepers from Guam, Carolines.

The total appropriation for construction work at Culion for the year was ₱17,360.32.

*Albay*.—Estimate for cost of hospital.

*Antipolo*.—Installation of public convenience station.

*Lolomboy*.—The sanitary installation of this reformatory was entirely remodeled.

*Agusan, Mindanao*.—Plans for a chain of hospitals in this province were prepared.

*Rizal (Pasig)*.—Geological investigations resulting in the drilling of a successful artesian well after many previous failures.

*Laguna (San Pablo)*.—Construction of a refuse crematory.

*Iloilo; Capiz*.—A short inspection trip was made to these two provinces.

*Benguet (Baguio)*.—Investigation for a new hospital site.

*Zambales (Iba)*.—Investigation for a gravity water supply.

The sanitary engineer also gave a series of lectures to the Graduate School of Tropical Medicine and Public Health, University of the Philippines, dealing with public health engineering in the Philippine Islands.

## OFFICE OF PROPERTY.

During the year 464 general requisitions were received and filled, originating from the following stations:

Iwahig Penal Colony.....	11
Provincial requisitions.....	105
Southern Islands Hospital.....	23
San Lazaro Hospital.....	8
Antituberculosis dispensary.....	14
Mary Chiles Christian Hospital.....	13
Naga provincial hospital.....	9
Baguio Hospital.....	15
Bilibid Prison Hospital.....	15
St. Paul's Hospital.....	4
Sibul Springs Sanatorium.....	12
Assistant Director's Office.....	5
Bontoc Hospital.....	13
Culion Leper Colony.....	22
Chief Disinfector.....	4
San Juan de Dios Hospital.....	1
Central free dispensary.....	14
Clerical office.....	12
Office of statistics.....	5
Butuan Hospital.....	9
San Juan Tuberculosis Hospital.....	10
Day nurseries.....	8
Tacloban provincial hospital.....	3
Health stations.....	78
Office of sanitary engineer.....	15
Philippine General Hospital.....	2
Kiangnan Hospital.....	1
Board of Dental Examiners.....	1
Bureau of Labor.....	2
Board of Pharmaceutical Examiners.....	1
Santo Tomas University.....	5
Mary J. Johnston Hospital.....	1
Mosquito extermination service.....	2
San Ramon Penal Farm.....	3
Provincial sanitary commissions.....	13
Plague and rat campaign.....	1
Division of sanitation, city of Manila.....	2
Board of Dental Hygiene.....	2
Total .....	464

Thirty-seven requisitions for supplies to be paid for by the requisitioners were received and filled.

Two hundred eighty-two requisitions were prepared and forwarded to the Bureau of Supply for stock to fill above requisitions.

One hundred seventy requisitions on the Bureau of Printing were required to supply the needs of the Bureau for printed matter.

Fifty-nine requisitions for commissary supplies were made on

the Bureau of Supply. These were received from the following sources:

San Lazaro Hospital.....	15
Bontoc Hospital.....	2
Culion Leper Colony.....	32
Southern Islands Hospital.....	6
Baguio Hospital.....	4
Total .....	59

*Vaccine report.*

	Units.
On hand January 1, 1915.....	17,550
Received during the year.....	1,846,500
Total .....	1,864,050
Issued during the year.....	1,842,100
Remaining on hand December 31, 1915.....	21,950

*Packages, simple remedy.*

	No. 1.	No. 2.	No. 3.
On hand Jan. 1, 1915 .....			6
Manufactured during the year.....	50	42	20
Total .....	50	42	26
Issued during the year .....	24	23	14
Remaining on hand Dec. 31, 1915 .....	26	19	12

From January 1, 1915, to December 31, 1915, there were drawn 180 orders for general supplies and 420 orders for commissary supplies under the direct order and payment system.

Interbureau vouchers and bills were received and passed as follows:

Open market.....	400
Bureau of Lands.....	1
Bureau of Posts.....	10
Manila Electric Railroad and Light Company.....	30
Bureau of Agriculture.....	4
Bureau of Supply.....	894
Bureau of Prisons.....	18
Bureau of Science.....	15
Division of Cold Storage.....	12
Bureau of Customs.....	4
Bureau of Printing.....	16
Manila Daily Bulletin.....	2
Philippine School of Arts and Trades.....	15
Bureau of Coast Surveys.....	1
Bureau of Internal Revenue.....	1
Philippine General Hospital.....	2
Quartermaster, U. S. M. C.....	1
Manila Suburban Railway Company.....	2
Quarantine Service.....	1
Total .....	1,429

During the year there were made 279 shipments by boat and 96 shipments by rail requiring 375 bills of lading.

**CLERICAL OFFICE.**

The reorganization of the Bureau under Act 2468, and the distribution of its duties among four divisions and four offices, the interests of each actively pushed by its respective head, has necessarily increased the work of the clerical office. Preparations were made to meet the change in advance of the Reorganization Act. An additional stenographer was employed to care for the increase in work in the Spanish language occasioned by the Council of Hygiene, and it is believed the office is in position to meet promptly all demands which may be made upon it.

The compiling of all records has been completed up to 1914. Since the records can be located more promptly by the use of the card system, there is nothing to be gained by pushing the compilation into book form of these old records, faster than at present.

A statement showing the financial transactions of the Philippine Health Service for the year 1915 will be found at the end of this report.

**RECOMMENDATIONS.**

Appropriation of sufficient funds for the construction of a new hospital at Baguio.

Appropriation of funds for additional construction at Culion Leper Colony.

Appropriation of funds for the creation of additional sanitary commissions.

**SOME NOTABLE RESULTS OBTAINED DURING THE YEAR.**

Cholera has been effectively controlled.

Smallpox has diminished.

The reappearance of plague has been prevented.

Flies and mosquitoes have diminished to the point that, in the city of Manila, they can scarcely be considered a nuisance except in isolated instances.

Provincial sanitary commissions have been organized and established.

A district nursing service has been instituted for the city of Manila and its extension to the provinces is being pushed as rapidly as possible, and promising results have already been obtained.

Diphtheria has been scientifically and effectively controlled.

Malaria has been controlled in the Agusan Valley.

Sanitary provisions prior to the holding of fiestas are now obligatory.

A survey of the lowlands of the city of Manila has been

made with the view to bringing about the filling of lowlands and the eradication of nuisances.

Twenty-three persons, negative for leprosy, have been released from the Culion Leper Colony, on probation.

New buildings have been constructed at the San Lazaro Hospital for the isolation of persons suspected of having leprosy, and for those negative for the disease.

Standard plans for the construction of provincial hospitals at a low cost, have been prepared.

A marked change has been brought about in the attitude of the people generally toward sanitation, and a renewed interest has been aroused.

A standard type of sanitary house has been developed, and several models have been constructed that they may serve to educate the people in this type of construction.

The Antipolo type of sewage disposal, for provincial use, has been perfected, tested, and found to be a satisfactory type of installation.

Ninety-nine new dispensaries have been established in towns of Bulacan and Tayabas.

The increased salaries, better prospects, and fixed status provided by the Reorganization Act has increased the efficiency of the commissioned personnel, and greater interest is constantly noted in the character of work performed.

Sanitary toilet installation is no longer confined to Manila, but is being extended to many houses in nearby towns.

Town waterworks have been established in San Pablo, Laguna, Taal, Batangas, and Vigan, Ilocos Sur, and 20 other municipalities are planning and preparing for similar water systems.

Forty-four municipalities were brought into health organizations with a qualified physician in charge, and plans were completed for organizing 100 more at the beginning of the new year, in all nearly one-third of the total number of municipalities.

Nine provincial laboratories have been appropriated for after January 1, 1916. Seven provincial and other health officers have taken the course of instruction in the Bureau of Science, and five will take it after January 1, 1916.

Very respectfully,

J. D. LONG,  
*Director of Health.*

The Honorable  
the SECRETARY OF THE INTERIOR,  
*Manila, P. I.*





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STATISTICAL TABLES  
PHILIPPINE HEALTH SERVICE

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JANUARY 1 TO DECEMBER 31, 1915

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# GENERAL STATISTICS.

[Unless otherwise stated, these statistics are for the fiscal year 1915.]

## POPULATION OF THE CITY OF MANILA.

[Health census of 1914.]

### BY NATIONALITIES.

Nationality.	Male.	Female.	Total.
Americans .....	3,584	1,890	5,474
Filipinos .....	125,730	111,210	236,940
Spaniards .....	2,414	1,992	4,406
Other Europeans .....	1,027	479	1,506
Chinese .....	15,235	1,422	16,657
All others .....	1,407	553	1,960
Total .....	149,397	117,546	266,943

### BY DISTRICTS.

Health district.	Male.	Female.	Total.
No. 1, Intramuros .....	18,467	13,586	32,053
No. 2, Meisic .....	57,121	32,943	90,064
No. 4, Sampaloc .....	22,856	21,367	44,223
No. 5, Tondo .....	36,520	35,279	71,799
No. 6, Paco .....	14,433	14,371	28,804
Total .....	149,397	117,546	266,943

### MARRIAGES.<sup>1</sup>

Nationality.	Total marriages.	Health district—					Single males married—			Widowed males married—		
		No. 1.	No. 2.	No. 4.	No. 5.	No. 6.	Single fe- male.	Widowed fe- male.	Divorced fe- male.	Single fe- male.	Widowed fe- male.	Divorced fe- male.
Americans .....	64	38	19	1	6	—	52	7	—	1	2	1
Filipinos .....	2,048	256	841	227	677	47	1,703	122	—	124	99	—
Spaniards .....	1	—	—	—	1	—	1	—	—	—	—	—
Other Europeans .....	18	13	4	1	—	—	12	3	1	5	—	—
Chinese .....	43	—	27	2	14	—	32	3	—	—	3	—
All others .....	2	—	1	1	—	—	2	—	—	—	—	—
Total .....	2,176	307	892	232	698	47	1,802	135	1	132	104	1

Nationality.	Divorced males married—			Nationality of brides.						Blood.	Affinity.
	Single fe- male.	Widowed fe- male.	Divorced fe- male.	Americans.	Filipinos.	Spaniards.	Other Euro- peans.	Chinese.	All others.		
Americans .....	1	—	—	25	34	1	4	—	—	—	—
Filipinos .....	—	—	—	—	2,045	—	2	1	—	8	—
Spaniards .....	—	—	—	—	1	—	—	—	—	—	—
Other Europeans .....	—	—	—	3	8	—	7	—	—	—	—
Chinese .....	—	—	—	—	41	—	—	2	—	—	—
All others .....	—	—	—	—	1	—	—	—	1	—	—
Total .....	1	—	—	28	2,130	1	13	3	1	8	—

Average per 1,000 population, 16.30.

<sup>1</sup> Registration incomplete.

MARRIAGES BY AGE.<sup>1</sup>

Males.		Females.						
	Num- ber.	To 14 years.	To 20 years.	To 25 years.	To 30 years.	To 40 years.	To 50 years.	Over 50 years.
To 14 years .....								
To 20 years .....	632	4	555	59	12	2		
To 25 years .....	899	3	604	230	48	13	1	
To 30 years .....	308	1	142	95	48	19	3	
To 40 years .....	236		86	53	46	44	6	1
To 50 years .....	69		17	13	10	21	7	1
Over 50 years .....	32		5	1	5	9	9	3
Total .....	2,176	8	1,409	451	169	108	26	5

<sup>1</sup> Registration incomplete.BIRTHS REPORTED.<sup>1</sup>

Nationality.	Male.	Annual birth rate per 1,000.	Female.	Annual birth rate per 1,000.	Total.	Annual birth rate per 1,000.
Americans .....	80	22.32	107	56.61	187	34.16
Filipinos .....	4,489	35.70	3,854	34.65	8,343	35.21
Spaniards .....	24	9.94	21	10.54	45	10.21
Other Europeans .....	34	33.10	26	54.27	60	39.84
Chinese .....	106	6.95	92	64.69	198	11.88
All others .....	9	6.39	8	14.46	17	8.67
Total and average .....	4,742	31.74	4,108	34.94	8,850	33.15

<sup>1</sup> Registration incomplete.BIRTHS, BY DISTRICTS.<sup>1</sup>

Health districts.	Legitimates.			Illegitimates.			Grand total.	Annual birth rate per 1,000.
	Male.	Female.	Total.	Male.	Female.	Total.		
No. 1, Intramuros .....	684	675	1,359	64	41	105	1,464	45.67
No. 2, Meisic .....	1,021	822	1,843	45	51	96	1,939	21.52
No. 4, Sampaloc .....	861	685	1,546	54	54	108	1,654	37.40
No. 5, Tondo .....	1,314	1,131	2,445	71	46	117	2,562	35.68
No. 6, Paco .....	603	579	1,182	25	24	49	1,231	42.73
Total .....	4,483	3,892	8,375	259	216	475	8,850	33.15

							Living.	Still- births.
Births attended by—								
Physicians .....							1,770	131
Midwife .....							2,390	71
Family .....							4,690	214

<sup>1</sup> Registration incomplete.

## BIRTHS, ACCORDING TO NUMBER OF CHILDREN BORNE BY MOTHER.

Number of births in the order in which the child was born, whether first child, second child, etc.	Living.		Total.	Stillborn.		Total.	Grand total.
	Male.	Female.		Male.	Female.		
First.....	1,071	926	1,997	52	53	105	2,102
Second.....	841	714	1,555	36	25	61	1,616
Third.....	688	634	1,322	31	27	58	1,380
Fourth.....	574	465	1,039	21	14	35	1,074
Fifth.....	445	400	845	18	20	38	883
Sixth.....	327	276	603	15	12	27	630
Seventh.....	265	221	486	8	6	14	500
Eighth.....	176	151	327	11	10	21	348
Ninth.....	118	93	211	7	8	15	226
Tenth.....	94	90	184	8	6	14	198
Eleventh.....	42	50	92	5	7	12	104
Twelfth.....	50	33	83	2	4	6	89
Thirteenth.....	18	26	44	1	3	4	48
Fourteenth.....	18	15	33				33
Fifteenth.....	4	9	13	1	3	4	17
Sixteenth.....	6	2	8	1		1	9
Seventeenth.....	3	2	5				5
Eighteenth.....		1	1				1
Nineteenth.....	1		1				1
Twentieth.....	1		1				1
Twenty-first.....				1		1	1
Total.....	4,742	4,108	8,850	218	198	416	9,266

## DEATHS AND DEATH RATE PER 1,000 AMONG RESIDENTS BY NATIONALITIES.

Nationality.	Male.	Annual death rate per 1,000.	Female.	Annual death rate per 1,000.	Total.	Annual death rate per 1,000.
Americans.....	17	4.74	9	4.76	26	4.74
Filipinos.....	3,403	27.06	3,115	28.01	6,518	27.50
Spaniards.....	37	15.32	11	5.52	48	10.89
Others Europeans.....	5	4.86	3	6.26	8	5.31
Chinese.....	191	12.53	11	7.73	202	12.12
All others.....	10	7.10	8	14.46	18	9.18
Total and average.....	3,663	24.51	3,157	26.85	6,820	25.54

## A CLASSIFIED REPORT OF ALL DEATHS OCCURRING IN MANILA, INCLUDING TRANSIENTS.

Social condition.	Male.	Female.
Married.....	1,009	696
Divorced.....	2	0
Widowed.....	269	548
Single.....	458	173
Children.....	2,721	2,228
Condition not stated.....	26	9
Total.....	4,485	3,649
Grand total.....	8,134	

Stillbirths.....	450
Deaths with medical attendance.....	5,500
Deaths without medical attendance.....	2,634

## DEATHS, BY AGES.

Ages.	Residents.		Transients.		Total.
	Male.	Female.	Male.	Female.	
Under 30 days.....	453	318	31	25	827
30 days to under 1 year.....	1,163	931	337	253	2,684
1 year to under 2 years.....	357	294	23	29	703
2 years to 4 years.....	244	245	9	13	511
5 years to 9 years.....	53	70	8	6	137
10 years to 14 years.....	30	27	11	10	78
15 years to 19 years.....	94	61	31	16	202
20 years to 29 years.....	215	216	98	40	569
30 years to 39 years.....	217	227	104	40	588
40 years to 49 years.....	234	197	79	25	535
50 years to 59 years.....	186	125	40	9	360
60 years to 69 years.....	178	135	26	12	351
70 years to 79 years.....	125	112	16	7	260
80 years to 89 years.....	67	99	2	4	172
90 years to 99 years.....	35	64	2	2	103
100 years and over.....	10	34			44
Age not stated.....	2	2			4
Total.....	3,663	3,157	817	491	*8,128

\* Of this total, 5, permanent residence unknown, not included.

## DEATHS AND DEATH RATE PER 1,000, BY DISTRICTS, INCLUDING TRANSIENTS.

Health districts.	Deaths.	Annual death rate per 1,000.
No. 1, Intramuros.....	1,194	37.25
No. 2, Meisic.....	1,621	17.99
No. 4, Sampaloc.....	1,262	28.53
No. 5, Tondo.....	3,291	45.83
No. 6, Paco.....	766	26.59
Total and average.....	8,134	30.47







## Deaths, with causes, occurring among residents, etc.—Continued.

Causes of death.	Amer- ican.		Filipinos.		Span- iards.		Other Euro- peans.		Chi- nese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
<i>VIII. Diseases of the skin and of the cellular tissue.</i>													
142. Gangrene .....				3									3
143. Furuncle .....			3	1					1				5
144. Acute abscess .....			1	1									2
145. Other diseases of the skin and adnexa .....			1		2								3
<i>X. Malformations.</i>													
(2) Congenital malformations of the heart .....			2	1	1								4
(3) Other congenital malformations .....				4									4
<i>XI. Diseases of early infancy.</i>													
151. Congenital debility, icterus, and sclerema .....		1	69	37								1	108
(1) Premature birth (not stillborn) .....			10	11									21
(2) Congenital debility .....			283	194					6	3		2	488
152. Other diseases peculiar to early infancy:													
(1) Injuries at birth (not still-born) .....				1									1
(2) Other causes peculiar to early infancy .....			15	17									32
<i>XII. Old age.</i>													
154. Senility .....			113	221	2				3		1		340
<i>XIII. Affections caused by external causes.</i>													
155. Suicide by poison .....			1	3									4
157. Suicide by hanging or strangulation .....									2				2
160. Suicide by cutting or piercing instruments .....			1										1
165b. Other acute poisonings .....			1	1						1			3
167. Burns (conflagration excepted) .....			6	5									11
169. Accidental drowning .....			9	1	1				3				14
170. Traumatism by firearms .....				1									1
171. Traumatism by cutting or piercing instruments .....			1										1
172. Traumatism by fall .....			2	2					1		1		6
175. Traumatism by other crushing (vehicles, railways, landslides, etc.) .....	1		3	3									7
176. Injuries by animals .....			1										1
180. Lightning .....			1										1
181. Electricity (lightning excepted) .....			1										1
183. Homicide by cutting or piercing instruments .....			2	1									3
184. Homicide by other means .....				1									1
186. Other external violence .....			8										8
<i>XIV. Ill-defined diseases.</i>													
188. Sudden death .....			1										1
189. Cause of death not specified or ill-defined .....		1	23	15	3				2				44
Total .....	17	9	3,403	3,115	37	11	5	3	191	11	10	8	6,820
Grand Total .....	26		6,518		48		8		202		18		6,820



## Deaths, with causes, occurring among transients, etc.—Continued.

Causes of death.	American.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
IV. Diseases of the respiratory system.													
87. Diseases of the larynx				1									1
88. Diseases of the thyroid body				1									1
89. Acute bronchitis	1		47	25									73
90. Chronic bronchitis			12	14									26
91. Broncho-pneumonia			21	10									31
92. Pneumonia			10	3			1				1		15
93. Pleurisy			5	2									7
94. Pulmonary congestion, pulmonary apoplexy			1										1
95. Gangrene of the lungs			2										2
96. Other diseases of the respiratory system (tuberculosis excepted)			1										1
V. Diseases of the digestive system.													
99. Diseases of the mouth and annexa				1	1		1						3
102. Ulcer of the stomach			1				1		1				3
103. Other diseases of the stomach (cancer excepted)			2										2
104. Diarrhoea and enteritis (under 2 years)	1		23	22									46
105. Diarrhoea and enteritis (2 years and over)		1	7	5					1				14
108. Appendicitis and typhlitis			6				1						7
109. Hernias, intestinal obstructions		1	4										5
110. Other diseases of the intestines			1										1
111. Acute yellow atrophy of the liver				1									1
113. Cirrhosis of the liver	1		4	1	3								9
114. Biliary calculi				1									1
115. Other diseases of the liver			4	1									5
116. Diseases of the spleen			1										1
117. Simple peritonitis (nonpuerperal)	1		3	6	1								11
VI. Nonvenereal diseases of the genito-urinary system and annexa.													
119. Acute nephritis			4	7									11
120. Bright's disease	2		20	9			1		1				33
122. Other diseases of the kidneys and annexa				1									1
123. Calculi of the urinary passages			3										3
128. Uterine hæmorrhage (nonpuerperal)				1									1
129. Uterine tumor (noncancerous)				1									1
130. Other diseases of the uterus				1									1
131. Cysts and other tumors of the ovary				4									4
VII. The puerperal state.													
134. Accidents of pregnancy		1		2									3
135. Puerperal hæmorrhage				2									2
136. Other accidents of labor				5									5
137. Puerperal septichæmia				2									2
VIII. Diseases of the skin and of the cellular tissue.													
142. Gangrene			3	1									4
143. Furuncle				1									1
144. Acute abscess	1		1	1									3
145. Other diseases of the skin and annexa			1										1

## Deaths, with causes, occurring among transients, etc.—Continued.

Causes of death.	American.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
<i>X. Malformations.</i>													
150. Congenital malformations (stillbirths not included: (2) Congenital malformations of the heart				2									2
<i>XI. Diseases of early infancy.</i>													
151. Congenital debility, icterus, and sclerema			21	14									35
(1) Premature birth (not still-born)	1		2										3
(2) Congenital debility			27	28									55
152. Other diseases peculiar to early infancy: (2) Other causes peculiar to early infancy	1	1	1	1									4
<i>XII. Old age.</i>													
154. Senility			3	2					1				6
<i>XIII. Affections caused by external causes.</i>													
157. Suicide by hanging or strangulation									1				1
167. Burns (conflagration excepted)			2	1									3
169. Accidental drowning			1		1								2
170. Traumatism by firearms			1										1
172. Traumatism by fall			1	1							1		3
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)			3	1									4
183. Homicide by cutting or piercing instruments			1										1
185. Fractures (cause not specified)			4										4
186. Other external violence			14	1							1		16
<i>XIV. Ill-defined diseases.</i>													
189. Ill-defined organic disease				1									1
189. Cause of death not specified or ill-defined			4										4
Total	19	5	745	482	9	2	10		20	1	14	1	1,308
Grand total	24		1,227		11		10		21		15		1,308

## DEATHS BY NATIONALITY, SEX, AND AGE.

[illegible]











## Deaths by nationality, sex, and age—Continued.

Causes of death.	2 years to 4 years.								5 years to 9 years.								10 years to 14 years.							
	Amer- icans.		Fili- pinos.		Span- iards.		Other Euro- peans.		Chi- nese.		All oth- ers.		Amer- icans.		Fili- pinos.		Span- iards.		Other Euro- peans.		Chi- nese.		All oth- ers.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
<i>XIII. Affections caused by external causes.</i>																								
157. Suicide by hanging or strangulation																								
167. Burns (conflagration excepted)																								
169. Accidental drowning																								
172. Traumatism by fall																								
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)																								
185. Fractures (cause not specified)																								
<i>XIV. Ill-defined diseases.</i>																								
189. Cause of death not specified or ill- defined																								
Total																								
Grand total																								

[illegible]

Deaths by nationality, sex, and age—Continued.

Causes of death.	15 years to 19 years.						20 years to 29 years.						30 years to 39 years.					
	Amer- icans.		Span- iards.		Other Euro- peans.		Amer- icans.		Span- iards.		Other Euro- peans.		Amer- icans.		Span- iards.		Other Euro- peans.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
<i>I. General diseases—Continued.</i>																		
45. Cancer and other malignant tumors of other organs and of organs not specified																		
46. Other tumors (tumors of the female genital organs excepted)					1	1									2	4		
47. Acute articular rheumatism																		
49. Scurvy																		
53. Leuchæmia																		
54. Anæmia, chlorosis					1	1												
56. Alcoholism (acute or chronic)																		
59. Other chronic poisonings																		
<i>II. Diseases of the nervous system and of the organs of special sense.</i>																		
60. Encephalitis																		
61. Simple meningitis																		
61a. Cerebro-spinal fever																		
63. Other diseases of the spinal cord																		
64. Cerebral hæmorrhage, apoplexy																		
65. Softening of the brain																		
66. Paralysis without specified cause																		
68. Other forms of mental alienation																		
73. Hysteria																		
74. Other diseases of the nervous system																		
<i>III. Diseases of the circulatory.</i>																		
78. Acute endocarditis																		
79. Organic diseases of the heart																		
80. Angina pectoris																		
82. Embolism and thrombosis																		
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)																		

84. Diseases of the lymphatic system  
(lymphangitis, etc.)IV. Diseases of the respiratory  
system.

87. Diseases of the larynx.....  
 88. Diseases of the thyroid body.....  
 89. Acute bronchitis.....  
 90. Chronic bronchitis.....  
 91. Broncho-pneumonia.....  
 92. Pneumonia.....  
 93. Pleurisy.....  
 94. Pulmonary congestion, pulmonary  
 apoplexy.....  
 95. Gangrene of the lungs.....  
 96. Asthma.....

## V. Diseases of the digestive system.

99. Other diseases of the mouth and  
 annexa.....  
 102. Ulcer of the stomach.....  
 103. Other diseases of the stomach  
 (cancer excepted).....  
 105. Diarrhoea and enteritis (2 years and  
 over).....  
 108. Appendicitis and typhlitis.....  
 109. Hernias, intestinal obstructions.....  
 110. Other diseases of the intestines.....  
 113. Cirrhosis of the liver.....  
 114. Biliary calculi.....  
 115. Other diseases of the liver.....  
 117. Simple peritonitis (nonpuerperal).....

VI. Nonvenereal diseases of the geni-  
to-urinary system and annexa.

119. Acute nephritis.....  
 120. Bright's disease.....  
 122. Other diseases of the kidneys and  
 annexa.....  
 123. Calculi of the urinary passages.....  
 124. Diseases of the bladder.....  
 128. Uterine hæmorrhage (nonpuerpe-  
 ral).....  
 130. Other diseases of the uterus.....  
 131. Cysts and other tumors of the ovary.....  
 132. Salpingitis and other diseases of  
 the female genital organs.....

[illegible]



## Deaths by nationality, sex, and age—Continued.

Causes of death.	40 years to 49 years.						50 years to 59 years.						60 years to 69 years.					
	Amer- icans.		Span- iards.		Other Euro- peans.		Amer- icans.		Span- iards.		Other Euro- peans.		Amer- icans.		Span- iards.		Other Euro- peans.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1. Typhoid fever			2	2			1	1							1	1		
4. Malaria	1		4	2	1													
4a. Malarial cachexia																		
10. Influenza			2															
12. Asiatic cholera			5	5	4		2	2										
14. Dysentery			2	2			2	2	1									
17. Leprosy			1	1														
18. Erysipelas			1	1			2	3										
20. Purulent infection and septicæmia.			2		1													
22. Anthrax																		
24. Tetanus	3	2					1	1										
27. Beriberi	3	13			6		2	5										
28. Tuberculosis of the lungs	1	114	103	1	15	1	74	52	1		11	1	1		67	49	1	1
29. Acute miliary tuberculosis		2	1															
30. Tuberculous meningitis		1																
31. Abdominal tuberculosis		2	5				3	4							6	3		
34. Tuberculosis of other organs															1	1		
35. Disseminated tuberculosis	1	1	1		1										2	1		
37. Syphilis.					1													
39. Cancer and other malignant tumors of the buccal cavity		1																
40. Cancer and other malignant tumors of the stomach, liver, of the stomach, liver																		
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum	3	3					3		2						6	2	1	
42. Cancer and other malignant tumors of the female genital organs			1								1							
43. Cancer and other malignant tumors of the breast			7													4		
45. Cancer and other malignant tumors of other organs and of organs not specified			1															
48. Chronic rheumatism and gout			4	2														
							3	6							2	1	1	1
							2								3	3		

## I. General diseases.









Deaths by nationality, sex, and age—Continued.

Causes of death.	70 years and over.										Unknown.										Total.										Grand total.		
	Amer- icans.		Fili- pinos.		Span- iards.		Other Euro- peans.		Chi- nese.		All oth- ers.		Amer- icans.		Fili- pinos.		Span- iards.		Other Euro- peans.		Chi- nese.		All oth- ers.										
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.									
<i>I. General diseases.</i>																																	
1. Typhoid fever.....																																	125
4. Malaria.....																																	46
4a. Malaria cachexia.....																																	5
6. Measles.....																																	4
8. Whooping cough.....																																	83
9. Diphtheria and croup.....																																	26
9a. Croup.....																																	1
10. Influenza.....																																	13
12. Asiatic cholera.....																																	46
14. Dysentery.....																																	129
17. Leprosy.....																																	18
18. Erysipelas.....																																	8
19. Other epidemic di- seases.....																																	4
20. Purulent infection and septicæmia.....																																	37
22. Anthrax.....																																	2
24. Tetanus.....																																	126
27. Beriberi.....																																	1,180
28. Tuberculosis of the lungs.....																																	1
29. Acute miliary tuber- culosis.....																																	2
30. Tuberculous meningi- tis.....																																	20
31. Abdominal tuberculo- sis.....																																	75
32. Pott's disease.....																																	58
33. White swellings.....																																	2
34. Tuberculosis of other organs.....																																	4
35. Disseminated tubercu- losis.....																																	10
36. Rickets.....																																	15

















## DEATHS, BY OCCUPATIONS.

Occupation.	Male.	Female.
<b>Professional:</b>		
Architects, artists, teachers of art, etc	4	1
Clergymen, priests, nuns, etc	11	6
Engineers and surveyors	6	
Journalists	1	
Lawyers	2	
Musicians and teachers of music	13	
Physicians and surgeons	3	
Nurses and midwives		4
Teachers (schools)	4	4
Others of this class	8	
<b>Clerical and official:</b>		
Bookkeepers, clerks, and and copyists	113	
Bankers, brokers, and officials of companies	3	
Collectors, auctioneers, and agents	2	
Stenographers and typewriters	1	
Telegraph and telephone operators	4	
Others of this class	11	
<b>Mercantile and trading:</b>		
Apothecaries, pharmacists, etc	4	
Commercial travellers	1	1
Merchants and dealers	67	11
Hucksters and peddlers	8	19
Shopkeepers	21	46
Others of this class	10	4
<b>Public entertainment:</b>		
Hotel and boarding house keepers	1	
Saloon keepers, liquor dealers, bartenders, restaurant keepers	1	
<b>Personal service, police and military:</b>		
Barbers and hairdressers	20	
Janitors and sextons	7	
Policemen, watchmen, and detectives	13	
Soldiers, sailors, and marines	10	
Others of this class	19	
<b>Laboring and servant:</b>		
Laborers (not agricultural)	515	2
Launderers	12	128
Servants	62	46
<b>Manufacturing and mechanical industry:</b>		
Bakers and confectioners	4	
Blacksmiths	10	
Boot, shoe and slipper makers	9	
Butchers	2	2
Carpenters and joiners	70	
Cigar makers and tobacco workers	50	78
Clock and watch repairers, jewellers, etc	12	
Compositors, printers, etc	11	1
Embroiderers (gold, silk, etc.)		10
Engineers and firemen (not locomotive)	20	
Hat and cap makers	1	1
Iron and steel workers	1	
Leather makers	1	
Leather workers	8	
Machinists	15	
Marble and stone cutters	3	
Masons (brick and stone)	20	
Mill and factory operatives (textiles)	1	2
Painters, glaziers, and varnishers	21	
Plumbers, gas and steam fitters	6	
Tailors, dressmakers, and seamsters	39	174
Tinners and tinware makers	2	
Others of this class	25	5
<b>Agriculture, transportation, and other Outdoors:</b>		
Boatmen and canalmen	14	
Draymen, drivers and teamsters	69	
Farmers, planters, and farm laborers	84	
Gardeners, florists, nurserymen, etc	2	
Livery stable keepers and hostlers	2	
Miners and quarrymen	3	
Sailors, pilots, fishermen, and oystermen	68	4
Steam railroad employees	1	
Others of this class	21	
<b>All other occupations</b>	98	39
<b>Total</b>	1,650	638
<b>Grand total</b>	2,288	

### INFANT MORTALITY.

Causes of death.	Moter's milk.		Wet nurse.		Other milk.		No milk.		Mixed.		With- out food.		Not stated.		Total.
	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	Under 30 days.	30 days to under 1 year.	
Abortion													1		1
Abscess		1													1
Anaemia, secondary haematoma beneath the scalp; occipital region													1		1
Angina					1										1
Asphyxia neonatorum.									2		5		3		10
Athrepsia		6			1	32							1	4	44
Atrophy:															
Acute yellow of liver						1								1	2
Infantile						2									2
Beriberi (?)															
Infantile	39	891	1			56			1	20		1	8	51	1,067
Birth, premature	1				1						11		11		24
Bronchitis:															
Acute	14	249		1	3	115				14			2	35	433
Capillary	1	9				9								24	36
Chronic	1	53				35					5			9	103
Grippal						1									1
Broncho-pneumonia.	4	53		1		28					7		1	27	121
Grippal		3		1											4
Burns, extensive														2	2
Cellulitis of neck and scalp													1		1
Cerebral congestion													3		3
Cholelithiasis		1													1
Cholera, asiatic		3				1								4	8
Colibacilar fever									2						2
Colitis, acute														1	1
Congenital atelectasis.	1												7		8
Debility	254	18			65	38	8			4	80		65	6	533
Deficiency											1		2	3	6
Convulsions of children	49	221			8	47			1	5			7	12	350
Diarrhoea and enteritis	2	17			1	25				4				2	51
Dilatation and hypertrophy of the heart															
Diphtheria														6	6
Dysentery		2				9								3	8
Enteritis		16			1	29				2			2	16	53
Eczema		1													1
Enterocolitis		1				3								5	9
Erysipelas		2				1							1		4
Furunculosis						1									1
Acute pyonephritis.														1	1
Gastroenteritis		27			4	50				3			1	18	103
Gastrointestinal intoxication						1									1
Grippe		1						1							2
Haemophilia:															
Neonatorum							1						1		2
Subdural	1													1	2
Umbilicus	9				1		2						5		17
Heart, organic diseases		1													1
Hepatitis, acute.														1	1
Icterus	6	2				3							2	1	14
Ileocolitis.														1	1
Impetigo contagiosum and dengue														1	1
Inanition														1	2
Infection about umbilicus and genital organs	1												1		2
Intestinal occlusion													1	2	3
Parasites														1	1
Malaria		2													2
Malnutrition					1	15								2	18
Marasmus		22				52			8				1	7	90
Meningitis:															
Simple	1	78				17				2			1	12	111
(Probably)		1													1
Tuberculous		7				3								3	13
Nephritis:															
Acute		7				3			1				10		21
Chronic		1				2									3
Nonclosure of botallo, foramen													2		2
Otitis media, suppurative; and parotiditis		1													1
Pemphigus															1
Pericarditis, acute														1	1

## Infant mortality—Continued.

Causes of death.	Mother's milk.		Wet nurse.		Other milk.		No milk.		Mixed.		Under 30 days with- out food.		Not stated.		Total.
	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	Under 30 days.	30 days to un- der 1 year.	
Peritonitis, acute.....						1							1		2
Pertussis and broncho-pneumonia.....		1											1		2
Pleurisy.....		1				1							1		3
Pneumonia.....	1	7				2				1			4		15
Postmortem decomposition (unde- termined).....		1											1		2
Pulmonary congestion.....											1	1			2
Rickets.....													1		1
Laryngismus stridulus.....													1		1
Septicaemia.....	1	3				1							1		7
Purpura haemorrhagica.....												2	1		3
Status thymicus.....													1		1
Syphilis, hereditary.....													1		1
Tetanus infantile.....	68	2			8				1				26		105
Thrombosis.....		1													1
Tuberculosis:															
Miliary.....														2	2
Pulmonary.....		1											2		3
Typhoid fever.....									3						3
Ulcerative enterocolitis (bacillary).....													1		1
Uraemia.....		2							1						3
Whooping cough.....		16				12									28
Total.....	454	1,732	1	4	97	596	11	1	5	84	99	160	267	3,511	

## COMPARATIVE MORTALITY FROM JANUARY, 1901, TO DECEMBER, 1915, INCLUSIVE.

Month.	1901		1902		1903		1904	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January.....	753	a 36.25	760	a 36.58	602	a 28.98	796	b 42.64
February.....	689	a 36.72	706	a 37.63	511	a 27.23	709	b 40.59
March.....	886	a 42.60	770	a 37.06	539	a 25.94	761	b 40.23
April.....	886	a 44.07	1,327	a 66.01	549	a 27.31	748	b 41.40
May.....	903	a 43.47	1,688	a 81.26	770	a 37.06	766	b 41.03
June.....	621	a 30.89	1,418	a 70.54	592	a 29.45	800	b 44.28
July.....	608	a 29.27	2,223	a 107.02	620	b 33.21	866	b 46.39
August.....	702	a 33.79	1,712	a 82.41	862	b 46.17	1,032	b 55.28
September.....	767	a 38.15	1,132	a 56.31	1,228	b 67.97	1,064	b 58.89
October.....	855	a 41.16	927	a 44.62	1,217	b 65.19	1,018	b 54.53
November.....	848	a 42.18	1,035	a 51.48	974	b 53.91	952	b 52.97
December.....	858	a 41.30	753	a 36.25	894	b 47.89	794	b 42.53
Total.....	9,375	a 38.30	14,451	a 59.04	9,358	b 40.27	10,301	b 46.83

Month.	1905		1906		1907		1908	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January.....	686	b 36.69	737	b 39.48	632	c 33.31	1,117	c 58.87
February.....	608	b 36.05	596	b 35.28	473	c 27.60	733	c 41.29
March.....	563	b 30.15	600	b 32.14	464	c 24.45	720	c 37.94
April.....	530	b 29.33	555	b 30.72	416	c 22.65	626	c 34.09
May.....	526	b 28.17	600	b 32.14	462	c 24.35	633	c 33.36
June.....	593	b 32.82	693	b 38.36	402	c 21.89	678	c 36.92
July.....	747	b 40.01	1,451	b 77.72	515	c 27.14	977	c 51.49
August.....	841	b 45.05	1,182	b 63.31	653	c 34.41	1,148	c 60.50
September.....	1,013	b 56.07	835	b 46.22	768	c 41.82	1,362	c 74.17
October.....	850	b 45.53	684	b 36.64	877	c 46.22	991	c 52.23
November.....	944	b 52.25	653	b 36.14	725	c 39.48	837	c 45.58
December.....	841	b 45.05	597	b 31.98	900	c 47.43	824	c 43.42
Total.....	8,741	b 39.74	9,182	b 41.74	7,287	c 32.59	10,646	c 47.62

*Comparative mortality from January, 1901, to December, 1915, inclusive—*  
Continued.

Month.	1909		1910		1911		1912	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January .....	720	¢ 37.94	729	¢ 36.64	653	¢ 32.82	698	¢ 35.08
February .....	616	¢ 35.94	638	¢ 35.50	536	¢ 29.82	611	¢ 32.82
March .....	618	¢ 32.57	642	¢ 32.26	574	¢ 28.85	732	¢ 36.79
April .....	650	¢ 29.95	594	¢ 30.85	547	¢ 28.41	671	¢ 34.55
May .....	544	¢ 28.67	604	¢ 30.35	609	¢ 30.60	701	¢ 35.23
June .....	552	¢ 30.06	646	¢ 33.55	693	¢ 35.99	605	¢ 31.42
July .....	691	¢ 36.41	799	¢ 40.15	830	¢ 41.71	689	¢ 34.63
August .....	679	¢ 35.78	731	¢ 36.74	878	¢ 44.13	705	¢ 35.43
September .....	649	¢ 35.34	664	¢ 34.48	741	¢ 38.48	661	¢ 34.33
October .....	700	¢ 36.89	705	¢ 35.43	686	¢ 34.48	633	¢ 31.81
November .....	778	¢ 42.37	642	¢ 33.34	782	¢ 40.61	573	¢ 29.76
December .....	839	¢ 44.22	635	¢ 31.91	698	¢ 35.08	540	¢ 27.14
Total .....	7,936	¢ 35.50	8,029	¢ 34.25	8,227	¢ 35.09	7,819	¢ 33.35

Month.	1913		1914		1915	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January .....	502	¢ 25.23	570	¢ 25.15	678	¢ 29.92
February .....	445	¢ 24.76	499	¢ 24.38	545	¢ 26.63
March .....	451	¢ 22.66	462	¢ 20.39	570	¢ 25.15
April .....	442	¢ 22.95	464	¢ 21.16	551	¢ 25.13
May .....	504	¢ 25.33	430	¢ 18.97	557	¢ 24.58
June .....	442	¢ 22.95	387	¢ 17.65	557	¢ 25.40
July .....	410	¢ 19.49	540	¢ 23.83	606	¢ 26.70
August .....	439	¢ 20.87	581	¢ 25.64	602	¢ 26.57
September .....	529	¢ 25.99	693	¢ 31.60	542	¢ 24.71
October .....	550	¢ 26.15	624	¢ 27.54	553	¢ 24.40
November .....	590	¢ 28.99	651	¢ 29.69	482	¢ 21.98
December .....	600	¢ 28.53	686	¢ 30.27	578	¢ 25.51
Total .....	5,904	¢ 24.48	6,587	¢ 24.67	6,820	¢ 25.54

<sup>a</sup> Death rate computed on population of 244,732 (Health Department census).

<sup>b</sup> Death rate computed on population of 219,941 (official census, 1903).

<sup>c</sup> Death rate computed on population of 223,542 (Health census, 1907).

<sup>d</sup> Death rate computed on population of 234,409 (Health census, 1910).

<sup>e</sup> Death rate computed on estimated population of 247,756.

<sup>f</sup> Death rate computed on population of 266,943 (Health census, 1914).

**MORTALITY COMPARED WITH SAME PERIOD OF PREVIOUS YEARS.**

Year.	First quarter.		Second quarter.		Third quarter.		Fourth quarter.	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
1901 .....	2,327	38.58	2,410	39.52	2,077	33.69	2,561	41.54
1902 .....	2,236	37.07	4,433	72.70	5,067	82.19	2,715	44.04
1903 .....	1,652	27.39	1,911	31.34	2,710	48.91	3,085	56.68
1904 .....	2,256	41.16	2,314	42.22	2,962	53.46	2,769	49.98
1905 .....	1,856	34.24	1,649	30.09	2,601	46.94	2,635	47.56
1906 .....	1,932	35.64	1,848	33.72	3,468	62.59	1,934	34.90
1907 .....	1,569	28.48	1,280	22.98	1,936	34.48	2,502	44.43
1908 .....	2,570	46.14	1,937	34.77	3,487	61.92	2,652	47.09
1909 .....	1,954	35.47	1,646	29.55	2,019	35.86	2,317	41.14
1910 .....	2,009	34.78	1,844	31.57	2,194	37.16	1,982	33.56
1911 .....	1,763	30.52	1,849	31.65	2,449	41.47	2,166	36.68
1912 .....	2,041	34.94	1,977	33.85	2,055	34.80	1,746	29.57
1913 .....	1,398	24.20	1,388	23.76	1,378	22.03	1,740	27.88
1914 .....	1,531	23.27	1,281	19.26	1,814	26.97	1,961	29.16
1915 .....	1,793	27.25	1,665	25.03	1,749	26.01	1,613	23.98

## EXPECTANCY OF LIFE.

Groups of ages.	Population.		Total deaths.		Average annual deaths per 1,000.	Annual death rate per 1,000.
	1903	1909	Fiscal years 1904-1913.	With unknown ages distributed between 15 to 40 years.		
Under 1 year	3,533	3,766	42,814	42,814	4,281	300.30
1 to 4 years	13,751	14,656	12,508	12,508	1,251	.....
5 to 9 years	15,368	16,380	1,835	1,835	183	11.20
10 to 14 years	17,291	18,429	920	920	92	4.99
15 to 19 years	26,139	27,859	2,788	2,822	282	10.22
20 to 29 years	60,561	64,547	8,555	8,659	866	13.41
30 to 39 years	41,312	44,032	7,586	7,679	768	17.43
40 to 49 years	21,084	22,473	5,396	5,396	540	24.01
50 to 59 years	11,386	12,136	4,111	4,111	411	33.87
60 to 69 years	6,175	6,582	3,013	3,013	301	45.77
70 to 79 years	2,265	2,415	2,046	2,046	205	84.72
80 to 89 years	763	814	1,343	1,343	134	164.98
90 to 99 years	230	246	628	628	63	255.28
Over 100 years	70	74	297	297	30	401.35
Unknown			231			
Total	219,923	234,409	94,071	94,071	9,407	

Groups of ages.	2,000—D. 2,000+D.	Logarythms of preceding rates.	Logarythms multiplied by exponential factors.	Corresponding rates.
Under 1 year				
1 to 4 years	0.73890.36	9.8685867-10	9.3429285-10	0.22025
5 to 9 years	.98886.23	9.9951348-10	9.9756740-10	.94552
10 to 14 years	.99502.24	9.9978318-10	9.9891590-10	.97534
15 to 19 years	.98983.19	9.9955606-10	9.9778030-10	.95017
20 to 29 years	.98667.93	9.9941719-10	9.9417190-10	.87441
30 to 39 years	.98272.05	9.9924298-10	9.9242930-10	.48003
40 to 49 years	.97627.48	9.9895699-10	9.8956990-10	.78650
50 to 59 years	.96669.40	9.9852872-10	9.8528720-10	.71264
60 to 69 years	.95525.40	9.9801170-10	9.8011700-10	.63265
70 to 79 years	.91872.28	9.9631832-10	9.6318320-10	.42038
80 to 89 years	.84759.21	9.9281858-10	9.2818580-10	.19136
90 to 99 years	.77361.66	9.8885221-10	8.8852210-10	.07677
Over 100 years	.66572.96	9.8232916-10	8.2329160-10	.01709
Unknown				
Total				

Groups of ages.	Survivors at each group out of 1,000,000 born.	Years lived by the survivors of each group of ages.	Expectation of life.
Under 1 year			
1 to 4 years	220,250	10,863,205	49.32
5 to 9 years	208,250	9,761,955	46.87
10 to 14 years	203,114	8,720,705	42.93
15 to 19 years	192,992	7,705,135	39.92
20 to 29 years	168,754	5,775,215	34.22
30 to 39 years	141,758	4,087,675	28.83
40 to 49 years	111,492	2,670,095	23.94
50 to 59 years	79,453	1,555,175	19.57
60 to 69 years	50,265	760,645	15.13
70 to 79 years	21,632	257,995	11.98
80 to 89 years	4,120	44,475	10.79
90 to 99 years	316	3,275	10.36
Over 100 years	5	25	5.00
Unknown			
Total			



## CHOLERA AND PLAGUE, CITY OF MANILA.

Nationality.	Cholera.				Plague.			
	Cases.		Deaths.		Cases.		Deaths.	
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.
Americans .....								
Filipinos .....	34	30	22	21				
Spaniards .....								
Other Europeans .....								
Chinese .....								
All Others .....	2		1					
Total .....	36	30	23	21				

District and age.	Cholera.		Plague.	
	Cases.	Deaths.	Cases.	Deaths.
Health districts:				
No. 1, Intramuros .....	13	6		
No. 2, Meisic .....	12	7		
No. 4, Sampaloc .....	15	11		
No. 5, Tondo .....	19	14		
No. 6, Paco .....	7	6		
Total .....	66	44		
Ages:				
Under 1 year .....	5	5		
1 year to 9 years .....	16	14		
10 years to 19 years .....	8	4		
20 years to 29 years .....	12	5		
30 years to 39 years .....	15	9		
40 years to 49 years .....	4	3		
50 years and over .....	6	4		
Unknown .....				
Total .....	66	44		

Case found alive: Cholera, 36; plague, 0.  
Cases found dead: Cholera, 30; plague, 0.

NOTE.—Two provincial cases died in the city, not included.

## SMALLPOX, CITY OF MANILA.

No cases of smallpox occurred during the period covered by this report.  
Last case occurred February 14, 1910; last death occurred June 15, 1909.

## VARILOID, CITY OF MANILA.

A total of 3 cases of varioloid occurred during the period covered by this report, all Filipinos.

## VARICELLA, CITY OF MANILA.

A total of 111 cases of varicella occurred during the period covered by this report—30 Americans, 72 Filipinos, 1 English, 1 Spaniard, and 7 Germans.

# **TUBERCULOSIS CASES REPORTED IN THE CITY OF MANILA DURING THE FISCAL YEAR 1915.**

[Closed Jan. 6, 1916.]

Nationality.	Health districts.										Total.
	No. 1.		No. 2.		No. 4.		No. 5.		No. 6.		
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	
Americans											
Filipinos	175	98	288	164	164	79	409	339	122	83	1,921
Spaniards											
Others Europeans	1				1		1		1		1
Chinese			5								8
All others			2								2
Total	176	98	295	164	165	79	410	339	123	83	1,932

Also reported 99 males and 57 females, provincial cases; and 2 males and 2 females, permanent residence unknown.

## **RAT CAMPAIGN OPERATIONS.**

Spring traps set.....	485,492
Rats caught with spring traps.....	68,443
Wire traps set.....	22,580
Rats caught with wire traps.....	250
Number and kind of bait set (coconuts).....	508,093
Rats caught by dogs.....	27
Poison portions placed.....	1,937,591
Rats found poisoned.....	903
Rats killed by clubs and other weapons.....	14,323
Rats found dead from other causes.....	563
Total rats otherwise caught or killed.....	84,509
Rats found positive by Bureau of Science.....	0
Rats found suspected.....	3

## **REPORT OF PRESCRIPTIONS FILLED AT THE CENTRAL FREE DISPENSARY.**

Health districts.	Americans.				Foreigners.			
	Adults.		Children.		Adults.		Children.	
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.
No. 1, Intramuros .....	1,221	77			49			
No. 2, Meisic .....	36				2			
No. 4, Sampaloc .....	119	7			5			
No. 5, Tondo .....	21	1						
No. 6, Paco .....	70	7			1			
Total .....	1,467	92			57			

Health districts.	Filipinos.				Chinese.				Total.
	Adults.		Children.		Adults.		Children.		
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	
No. 1, Intramuros	11,480	5,560	1,428	1,281	3				21,029
No. 2, Meisic	1,982	1,884	480	386	16				4,786
No. 4, Sampaloc	1,916	1,292	1,281	651	13				5,284
No. 5, Tondo	1,063	941	818	816					2,660
No. 6, Paco	518	320	94	112					1,122
Total	16,959	9,997	3,601	2,746	32				34,951

## REPORT OF SICK AND WOUNDED POOR ATTENDED BY MUNICIPAL PHYSICIANS.

Health districts and physicians.	Americans.				Foreigners.				Filipinos.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
No. 1, Intramuros, Dr. V. Cavanna	2		1		15				1,600	1,307	737	725
No. 2, Meisic, Drs. F. Herrera and C. Reyes	7								299	148	231	216
No. 4, Sampaloc, Dr. F. Castañeda					1	1			507	885	680	599
No. 5, Tondo, Drs. V. Pantoja and P. Gabriel	1				2	1			1,492	1,254	1,194	1,008
No. 6, Paco:												
Dr. J. B. Cabarrús									170	176	206	222
Dr. Tee Han Kee									61	54	30	47
Total	10		1		18	2			4,129	3,924	3,078	2,817

Health districts and physicians.	Chinese.				Total.	Cured.		Deaths.		Visits.
	Adults.		Children.			Male.	Female.	Male.	Female.	
	Male.	Female.	Male.	Female.						
No. 1, Intramuros, Dr. V. Cavanna					4,387	990	849	11	18	9,675
No. 2, Meisic, Drs. F. Herrera and C. Reyes	38		7		1,046	480	366	2	4	4,530
No. 4, Sampaloc, Dr. F. Castañeda					2,674	136	201	54	39	3,286
No. 5, Tondo, Drs. V. Pantoja and P. Gabriel	10	1			4,963	677	309	5	3	10,472
No. 6, Paco:										
Dr. J. B. Cabarrús					774	261	276	7	5	2,170
Dr. Tee Han Kee	413	1	30	1	637	637	447		1	2,379
Total	462	2	37	1	14,481	2,991	2,085	79	70	32,512

## REPORT ON THE PHYSICAL DEFECTS IN SCHOOL CHILDREN.

Diseases found.	Boys.	Girls.	Disposition of cases.					Total.
			Excluded.	Sent to dispensary.	No treatment.	Refused treatment.	Health station notified.	
To be excluded:								
Pertussis				2			1	2
Mumps	2		1					
Tuberculosis	58	37		95			3	95
Measles								
Contagious eye cases, except trachoma								
Pediculosis with live pediculi								
Scabies	52	41	1	93				93
Contagious skin cases (pemphigus)	1			1				1
Favus	5	5	1	10				10
Other communicable infectious diseases.								
Not to be excluded:								
Pediculosis, no live pediculi		6		6				6
Adenoids	76	12		78	10			88
Tonsils hypertrophied	126	28		121	33			154
Conjunctivitis, acute	281	111		392				392
Trachoma	105	12		117				117
Myopia	133	48		175	6			181
Other eye affections:								
Astigmatism	165	47		211	1			212
Blepharitis marginalis		2		2				2
Blind one eye	22	6		7	21			28
Cataract	1			1				1
Follicular conjunctivitis	13			13				13

## Report on the physical defects in school children—Continued.

Diseases found.	Boys.	Girls.	Disposition of cases.					Total.
			Ex-cluded.	Sent to dis-pen-sary.	No treat-ment.	Re-fused treat-ment.	Health station noti-fied.	
Other eye affections—Continued.								
Hordeolum		1		1				1
Hypermetropia	9	4		13				13
Opacity cornea	7				7			7
Ophthalmitis	2			2				2
Pterygium	4	3		4	3			7
Staphyloma	2			4	2			2
Strabismus	18	13		28	3			31
Ulcer cornea	4	1		5				5
Defects of hearing	619	187		803	3			806
Discharge from one ear	15	3		18				18
Discharge from both ears	1			1				1
Adenitis, tubercular	63	51		114				114
Tinea	1,159	264		1,356	67			1,423
Dental caries	2,786	1,705		3,456	1,035			4,491
Bodily deformities	38	4		11	31			42
Mental defects		2			2			2
Backward development		17			17			17
Other diseases:								
Abcess	8	1		9				9
Acne	3			3				3
Adenitis	88	45		131	2			133
Anaemia	59	58		114	3			117
Arthritis	19	6		24	1			25
Ascariasis	1			1				1
Asthma	1	2		3				3
Beriberi	14	2		16				16
Bronchitis	1,170	501		1,671				1,671
Chorea	3	1		4				4
Cysts	2			2				2
Dengue	1			1				1
Dermoid cyst		1		1				1
Dislocation	5			5				5
Dysentery	3	1		4				4
Ecthyma	2	3		5				5
Eczema	10	6		16				16
Epilepsy	2	1		3				3
Erythema		1		1				1
Gastritis	166	31		197				197
Glossitis	1			1				1
Goitre		5		5				5
Heloid		1		1				1
Hemiplegia		1			1			1
Hordeolum	3	1		4				4
Hysteria		1		1				1
Iritis	1	1		2				2
Impetigo		1		1				1
Laryngitis	8			7	1			8
Leucoderma	5	4		3	6			9
Lupus	1			1				1
Malaria	4	1		5				5
Mastoiditis		1		1				1
Migraine	3	2		5				5
Myalgia	147	106		253				253
Otitis media	8	2		10				10
Palpitation	1			1				1
Parotitis, chronic		1		1				1
Pharyngitis	23	11		34				34
Pleurisy	74	8		82				82
Psoriasis	1			1				1
Rheumatism		2		3				3
Rhinitis	28	4		31	1			32
Sprained arm	2			2				2
Synovitis	2			2				2
Tonsillitis	10	6		16				16
Tumors	5	1		6				6
Ulcers	23	12			35			35
Urticaria	4			4				4
Valvular lesions	7	2		8	1			9
Varicose veins	1			1				1
Vertigo	25	7		32				32
Vaccinations required	53	40						93
Vaccinations made								
Total	7,766	3,490	3	9,906	1,257	0	4	11,256

Total number of children examined, 25,747.

## CITY MORGUE REPORT.

Disposition.	Bodies.	Disposition.	Bodies.
Remaining from last year .....	71	Transferred to army morgue.....	8
Received .....	885	Transferred to government museum .....	37
Total .....	956	Transferred to provinces.....	64
Buried by city .....	406	Transferred to Santo Tomas University.....	2
Buried by family .....	371	Remaining after the year .....	68
		Total .....	956

## DISPOSITION OF DEAD BODIES.

Buried:		Remaining in—	
Balicbalic cemetery .....	1,009	Army morgue .....	4
Binondo cemetery .....	1,968	City morgue .....	105
Chinese cemetery .....	249	Private morgue .....	1
Norte cemetery .....	4,050	Santo Tomas University .....	2
Pandacan cemetery:		Shipped to—	
Filipino Church .....	134	China .....	2
Roman Catholic .....	31	The United States.....	6
Santa Ana cemetery .....	114	Transferred to provinces.....	199
Singalong cemetery .....	824	Total .....	8,735
Otherwise dispose of:			
Cremated .....	37		

\* Of this total, 71 from city morgue, 3 from Army morgue, and 2 from private morgue, remaining from last year; 66 dead bodies brought from the provinces; and 450 were stillbirths.

## DISINTERNMENTS.

Cemetery.	Number.	Cemetery.	Number.
Balicbalic .....	36	Paco .....	110
Binondo .....	230	Pandacan, Roman Catholic .....	1
Chinese .....	47	Santa Ana .....	2
Loma .....	4	Santa Cruz .....	20
Malate .....	1	Total .....	463
Norte .....	12		

## GENERAL INSPECTIONS OF HOUSES, PREMISES, VAULTS, ETC., WITH IMPROVEMENTS ORDERED, WHITEWASHED, CLEANED, ETC., BY MEDICAL INSPECTORS, SANITARY INSPECTORS, AND ASSISTANT SANITARY INSPECTORS.

1. Inspections of houses by sanitary inspectors.....	25,272
2. Reinspections of houses for verification of work ordered.....	7,944
3. Inspections of houses by assistant sanitary inspectors and sanitary policemen.....	289,779
4. Reinspections of houses by assistant sanitary inspectors and sanitary policemen.....	56,298
5. Houses ordered cleaned (written).....	110
6. Houses ordered cleaned (verbal).....	44,802
7. Houses cleaned .....	44,399
8. Houses ordered whitewashed and painted.....	784
9. Houses whitewashed and painted.....	775
11. Houses recommended condemned and removed .....	16
12. Houses condemned and removed .....	7
13. Localities where "squatters" are located.....	
14. Samples of water, foods, etc., sent to laboratory.....	14,850
15. Reports for same.....	11,911
16. Fire plugs opened or closed for sanitary purposes.....	
17. Hydrants recommended reopened.....	
18. Houses where garbage has not been removed for two days.....	165
19. Persons reported sick to municipal physicians.....	21,520
20. Cesspools and vaults ordered cleaned.....	23
21. Cesspools cleaned .....	12
22. Yards ordered cleaned.....	31,334
23. Yards cleaned .....	31,160
24. Yards ordered repaired (repaved, etc.).....	51
25. Yards repaired .....	50
26. Cholera cases reported by sanitary inspectors.....	29
27. Cholera cases found alive.....	68
28. Cholera cases found dead.....	34
29. Orders issued during the year.....	5,527
30. Orders complied with during the year.....	3,180
31. Orders awaiting action.....	384
32. Orders pending in court.....	
33. Average number of food tiendas in the districts.....	2,834
34. Persons convicted for violation of food prohibition orders.....	193
35. Average number of regular inspectors on duty.....	44
36. Average number of regular emergency inspectors on duty.....	14
37. Lepers sent to San Lazaro Hospital.....	112
38. Plague cases reported.....	1
39. Smallpox cases reported.....	

## REPORT OF DISINFECTIONS.

Causes for disinfections.	Disinfections.	Contacts.
Bubonic plague, suspected .....	1	4
Cancer .....	11	52
Carbuncle .....	2	5
Carcinoma .....	1	6
Cholera .....	40	1,746
Suspected .....	73	2,819
Vibrio carrier .....	55	3,970
Dengue .....	2	28
Diphtheria .....	67	448
Suspected .....	21	102
Vibrio carrier .....	514	3,377
Dysentery, bacillary .....	8	27
Endocarditis, infective .....	1	8
Enteritis, tuberculous .....	1	6
Erysipelas .....	4	11
Fibroma, pharyngeal .....	1	—
Glanders .....	4	19
Horse plague .....	1	—
Horse infected glanders .....	2	—
Intestinal parasites .....	2	5
Leprosy .....	103	274
Suspected .....	14	38
Malaria .....	1	—
Measles .....	74	489
Meningitis, tuberculous .....	35	142
Mumps .....	17	52
Myocarditis:		
Beriberi .....	1	—
Infectious .....	1	—
Paratyphoid, bacillary .....	1	10
Pleurisy, tuberculous .....	1	2
Pneumonia .....	8	32
(Postmortem, diphtheria) .....	1	4
Puerperal eclampsia .....	2	12
Puerperal septicaemia .....	2	7
Purulent ophthalmia .....	1	12
Septicaemia neonatorum .....	1	—
Scrofula .....	1	7
Scurvy .....	1	4
Tetanus .....	41	202
Tuberculosis .....	715	3,152
Suspected .....	1	2
Typhoid .....	116	819
Bacillary .....	1	5
Bacilli carrier .....	2	14
Suspected .....	3	29
Ulcer .....	1	16
Typhus .....	1	4
Varicella .....	40	133
Varioloid .....	60	318
White tumor .....	1	15
Whooping cough .....	67	356
Pneumonia .....	3	12
(Postmortem, cholera vibrio carrier) .....	1	6
Insanitary conditions .....	39,416	10,592
Total .....	41,545	29,393

## REPORT OF ACTION TAKEN ON APPLICATIONS FOR LICENSES.

Approved .....	9,532
Disapproved .....	332
Total acted upon .....	9,864

GENERAL RETURN OF BIRTHS AND DEATHS IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS  
DURING THE CALENDAR YEAR 1914.

Provinces.	Average of population.	Births.	Annual birth rate per 1,000.	Deaths.													Total.
				Under 30 days.	1 year to under 1 year.	2 years to under 2 years.	5 years to under 5 years.	10 years to under 10 years.	15 years to under 15 years.	20 years to under 20 years.	30 years to under 30 years.	40 years to under 40 years.	50 years to under 50 years.	60 years to under 60 years.	70 years and over.	Age not stated.	
Abra	62,798	2,265	36.06	102	118	49	47	46	30	24	65	84	94	84	83	141	967
Agusan	21,793	510	23.40	34	37	36	24	14	19	18	21	21	17	14	14	15	270
Albay	257,130	12,378	48.13	641	1,078	534	706	217	240	470	348	342	342	338	352	717	5,160
Ambos Camarines	11,478	45.57	332	518	816	332	457	277	311	455	307	356	356	283	295	485	5,153
Antique	136,472	5,718	41.89	217	288	187	213	99	40	67	76	106	117	128	130	249	1,916
Bataan	47,230	2,425	51.34	281	363	130	91	58	17	22	113	98	70	70	57	105	1,477
Batanes	8,322	340	40.85	62	8	8	9	2	2	4	9	15	13	11	20	2	1,180
Batanga	325,690	15,690	48.26	1,288	1,692	577	575	213	100	158	275	421	343	327	327	798	6,949
Bohol	269,223	14,255	52.94	789	1,064	401	504	273	108	173	400	300	233	248	290	576	5,406
Bulacan	225,753	12,748	56.46	1,109	2,084	430	442	228	112	227	478	438	421	341	356	543	7,144
Cagayan	144,789	6,727	46.65	499	602	323	342	154	62	80	169	180	212	165	175	284	3,250
Capiz	221,103	9,966	45.07	691	750	463	646	463	161	170	394	393	335	301	309	543	5,359
Cavite	137,520	7,272	52.87	691	1,064	332	312	117	54	84	241	254	216	201	210	335	4,111
Cebu	678,393	36,529	53.84	1,284	2,020	1,084	810	577	345	366	439	499	682	608	527	1,433	10,752
Ilocos Norte	217,047	8,040	36.96	460	453	343	408	198	63	98	198	189	223	194	278	376	3,172
Ilocos Sur	213,005	7,554	34.65	592	555	343	408	198	63	98	248	248	218	217	285	426	3,828
Iloilo	388,848	18,203	46.81	834	1,214	784	714	377	206	261	511	403	417	339	350	451	6,778
Isabela	73,803	3,742	50.70	193	303	141	125	84	57	64	73	112	145	115	99	178	1,680
Laguna	149,521	9,219	61.65	845	1,245	365	340	186	96	124	388	357	339	251	265	402	5,209
Leyte	528,126	21,038	39.83	576	1,235	646	694	450	212	311	583	436	530	371	408	653	7,179
Misamis	132,602	8,208	61.89	575	933	374	343	188	161	175	206	211	183	159	169	303	3,943
Nueva Ecija	132,999	7,487	56.29	649	820	414	368	147	85	91	235	257	221	174	173	313	4,065
Nueva Vizcaya	22,002	1,201	54.58	68	96	43	48	29	11	20	40	70	55	49	56	61	762
Oriental Negros	304,658	10,211	33.51	678	804	392	907	773	136	252	229	287	413	371	288	623	6,048
Palawan	184,889	9,694	52.43	454	704	382	260	111	61	118	284	226	201	202	191	219	3,491
Pampanga	225,113	14,218	63.15	1,380	2,221	453	403	239	98	171	236	245	425	337	303	699	7,288
Pangasinan	441,816	25,127	56.87	2,096	1,560	1,528	1,546	730	268	400	811	769	720	571	548	1,264	13,228
Rizal	154,934	9,537	61.70	963	1,750	433	548	139	66	120	339	329	318	247	277	547	5,926
Romblon	52,034	2,017	34.16	90	115	115	100	73	69	55	74	75	63	89	108	10	1,119
Samar	365,548	10,830	40.48	413	506	491	499	400	167	217	468	445	489	438	440	605	6,071
Surigao	84,056	2,154	25.62	178	209	125	143	107	65	75	82	88	103	77	69	148	1,489
Tarlac	133,971	3,132	23.42	748	894	326	314	137	69	222	215	183	137	146	333	2	3,755
Tarabas	202,662	3,908	46.89	676	999	413	366	197	140	328	430	376	449	390	323	623	5,765
Union	132,430	6,233	47.09	332	502	379	438	237	91	121	277	221	233	178	169	394	3,697
Zambales	58,678	2,984	50.86	260	167	129	129	64	43	98	100	116	116	84	68	119	1,398
Total and average	6,925,319	335,725	48.47	21,094	30,134	13,680	13,962	7,430	4,989	9,608	9,024	9,581	8,161	8,051	15,151	783	155,029

**GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE CALENDAR YEAR 1914.**

Causes of death.	Abra.	Agu-san.	Albay.	Ambos Camarines.	Antique.	Bataan.	Batanes.
Typhoid fever	2	28	13	20	20	11	-----
Typhus fever	-----	6	20	-----	15	-----	-----
Malaria	334	50	698	803	441	53	1
Malarial cachexia	43	6	106	108	9	70	-----
Smallpox	-----	-----	-----	-----	-----	-----	-----
Measles	-----	3	1	26	2	-----	-----
Whooping cough	16	3	25	32	9	3	-----
Diphtheria and croup	-----	-----	-----	2	-----	-----	-----
Asiatic cholera	-----	-----	-----	-----	-----	16	-----
Dysentery	18	12	230	289	141	14	2
Leprosy	-----	1	1	-----	-----	-----	-----
Beriberi	-----	10	89	67	1	22	-----
Tuberculosis of the lungs	155	14	556	692	442	103	5
Tuberculosis of other organs	1	1	138	81	37	18	-----
Cancer and other malignant tumors	3	2	13	26	3	9	1
Cerebral hæmorrhage, apoplexy	6	1	33	6	2	5	2
Convulsions of infants (under 5 years)	10	11	1,108	696	44	376	11
Acute bronchitis	18	14	228	108	65	25	1
Diarrhoea and enteritis (under 2 years)	22	2	175	171	50	7	4
Diarrhoea and enteritis (2 years and over)	5	2	86	69	55	22	6
Diseases of the puerperal state	14	-----	144	127	18	39	2
Violence:	-----	-----	-----	-----	-----	-----	-----
Suicide	3	-----	4	1	1	1	-----
Not suicide	7	1	52	48	12	8	2
Homicide	-----	-----	1	2	6	3	-----
All other causes of death	311	103	2,439	1,778	543	672	143
<b>Total</b>	<b>967</b>	<b>270</b>	<b>6,160</b>	<b>5,153</b>	<b>1,916</b>	<b>1,477</b>	<b>180</b>
<b>Males</b>	<b>508</b>	<b>158</b>	<b>3,265</b>	<b>2,736</b>	<b>1,023</b>	<b>793</b>	<b>81</b>
<b>Females</b>	<b>459</b>	<b>112</b>	<b>2,895</b>	<b>2,417</b>	<b>893</b>	<b>684</b>	<b>99</b>
<b>Annual death rate per 1,000</b>	<b>15.39</b>	<b>12.38</b>	<b>23.95</b>	<b>20.45</b>	<b>14.03</b>	<b>31.27</b>	<b>21.62</b>
<b>CLASSIFIED REPORT OF ALL DEATHS OCCURRING.</b>							
<b>Males:</b>	-----	-----	-----	-----	-----	-----	-----
Married	172	31	763	631	229	165	23
Widowers	68	13	298	336	102	60	3
Divorced	-----	-----	-----	-----	-----	4	-----
Single	53	29	302	336	89	46	3
Boys	215	82	1,889	1,432	590	518	52
Condition not stated	-----	3	13	1	13	-----	-----
<b>Females:</b>	-----	-----	-----	-----	-----	-----	-----
Married	145	31	660	485	214	168	17
Widows	93	18	500	486	166	79	15
Divorced	-----	-----	-----	-----	-----	2	-----
Single	28	11	282	254	107	13	13
Girls	192	49	1,453	1,191	406	422	54
Condition not stated	1	3	-----	1	-----	-----	-----

Causes of death.	Batanga.	Bohol.	Bulacan.	Cagayan.	Capiz.	Cavite.	Cebu.
Typhoid fever	111	71	112	-----	74	12	155
Typhus fever	38	84	1	-----	7	1	7
Malaria	421	207	522	355	632	340	678
Malarial cachexia	101	3	43	23	62	118	46
Smallpox	-----	-----	-----	-----	-----	-----	22
Measles	8	16	-----	1	3	-----	106
Whooping cough	39	155	6	-----	117	6	200
Diphtheria and croup	4	34	22	-----	17	-----	3
Asiatic cholera	11	-----	328	-----	368	63	-----
Dysentery	179	32	146	154	677	39	128
Leprosy	-----	1	-----	-----	-----	1	-----
Beriberi	295	67	265	63	15	213	296
Tuberculosis of the lungs	618	450	912	255	632	326	785
Tuberculosis of other organs	32	53	24	37	145	11	170
Cancer and other malignant tumors	11	39	28	8	14	15	80
Cerebral hæmorrhage, apoplexy	34	11	54	2	42	33	19
Convulsions of infants (under 5 years)	1,230	285	1,165	630	199	994	558
Acute bronchitis	284	45	114	57	53	111	224
Diarrhoea and enteritis (under 2 years)	210	134	76	32	69	165	329
Diarrhoea and enteritis (2 years and over)	140	25	62	9	11	108	267
Diseases of the puerperal state	125	78	102	34	100	72	194
Violence:	-----	-----	-----	-----	-----	-----	-----
Suicide	9	14	3	3	18	5	28
Not suicide	61	42	43	25	48	22	74



## General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Batanga.	Bohol.	Bulacan.	Cagayan.	Capiz.	Cavite.	Cebu.
Homicide	9	4	—	6	6	5	23
All other causes of death	2,980	3,556	3,116	1,556	2,050	1,451	6,860
Total	6,949	5,406	7,144	3,250	5,359	4,111	10,752
Males	3,634	2,771	3,824	1,759	2,668	2,191	5,739
Females	3,315	2,635	3,320	1,491	2,691	1,920	5,013
Annual death rate per 1,000	21.37	20.08	31.64	22.53	24.23	29.89	15.84
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	759	557	794	377	650	449	1,273
Widowers	241	207	322	167	260	153	407
Divorced	—	—	—	—	—	—	—
Single	196	205	273	126	188	144	619
Boys	2,424	1,786	2,433	1,088	1,569	1,437	3,440
Condition not stated	14	16	2	1	1	8	—
Females:							
Married	713	598	745	300	636	396	1,193
Widows	436	330	411	224	505	305	520
Divorced	—	—	—	—	—	—	—
Single	182	323	254	84	273	86	680
Girls	1,984	1,373	1,910	881	1,266	1,133	2,620
Condition not stated	—	11	—	2	11	—	—

Causes of death.	Ilocos Norte.	Ilocos Sur.	Iloilo.	Isabela.	Laguna.	Leyte.	Misamis.
Typhoid fever	23	—	27	14	62	153	250
Typhus fever	—	—	4	—	25	18	4
Malaria	482	776	552	271	493	1,219	467
Malarial cachexia	46	—	99	45	124	116	110
Smallpox	—	—	—	—	—	90	—
Measles	—	3	10	—	—	10	14
Whooping cough	36	32	42	21	14	115	137
Diphtheria and croup	—	—	66	1	—	—	8
Asiatic cholera	1	74	—	—	158	—	—
Dysentery	89	324	544	62	155	280	165
Leprosy	1	—	2	1	—	2	—
Beriberi	124	16	60	35	159	165	154
Tuberculosis of the lungs	322	431	1,103	218	663	639	393
Tuberculosis of other organs	15	3	55	4	56	160	45
Cancer and other malignant tumors	7	17	29	1	13	30	37
Cerebral haemorrhage, apoplexy	12	12	37	—	16	7	—
Convulsions of infants (under 5 years)	365	446	1,391	160	992	323	558
Acute bronchitis	16	38	166	82	122	205	60
Diarrhoea and enteritis (under 2 years)	26	101	147	11	124	141	106
Diarrhoea and enteritis (2 years and over)	24	76	145	8	52	130	28
Diseases of the puerperal state	45	55	116	24	90	166	53
Violence:							
Suicide	11	3	7	4	6	15	9
Not suicide	20	32	40	21	52	57	32
Homicide	4	7	6	6	3	23	6
All other causes of death	1,503	1,382	2,130	701	1,830	3,115	1,308
Total	3,172	3,828	6,778	1,690	5,209	7,179	3,943
Males	1,585	1,921	3,595	9,137	2,756	3,870	2,072
Females	1,587	1,907	3,183	777	2,453	3,309	1,871
Annual death rate per 1,000	14.59	17.55	17.43	22.89	34.83	13.59	29.73
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	443	419	702	273	657	917	398
Widowers	199	331	373	74	208	351	143
Divorced	2	—	—	3	2	14	2
Single	124	152	284	80	182	453	187
Boys	814	1,117	2,231	482	1,680	2,112	1,342
Condition not stated	3	2	5	1	27	23	—
Females:							
Married	414	455	651	236	614	769	394
Widows	290	315	494	115	347	414	175
Divorced	5	—	—	—	10	16	1
Single	137	170	204	50	124	383	130
Girls	789	966	1,818	372	1,344	1,724	1,166
Condition not stated	2	1	16	4	14	3	5

## General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Nueva Ecija.	Nueva Vizcaya.	Occidental Negros.	Oriental Negros.	Palawan.	Pampanga.	Pangasinan.
Typhoid fever	—	2	30	56	39	54	114
Typhus fever	12	—	13	8	—	1	2
Malaria	384	90	590	304	16	605	2,635
Malarial cachexia	52	80	57	8	1	131	266
Smallpox	—	—	18	—	—	1	1
Measles	—	—	109	1	1	5	57
Whooping cough	2	—	74	142	9	16	26
Diphtheria and croup	—	—	29	3	—	1	1
Asiatic cholera	—	—	—	—	—	253	179
Dysentery	399	3	726	73	8	82	515
Leprosy	—	—	1	—	—	1	—
Beriberi	—	13	104	134	6	268	186
Tuberculosis of the lungs	466	91	734	279	19	751	1,637
Tuberculosis of other organs	25	5	103	63	—	47	109
Cancer and other malignant tumors	3	—	14	31	1	14	27
Cerebral haemorrhage, apoplexy	2	—	24	10	—	26	53
Convulsions of infants (under 5 years)	798	71	1,001	224	31	1,985	2,515
Acute bronchitis	80	6	8	75	1	134	322
Diarrhoea and enteritis (under 2 years)	165	1	93	83	16	173	331
Diarrhoea and enteritis (2 years and over)	148	2	98	49	5	103	252
Diseases of the puerperal state	73	22	90	56	4	143	237
Violence:	—	—	—	—	—	—	—
Suicide	3	—	84	14	—	2	11
Not suicide	35	9	52	22	1	63	120
Homicide	5	1	3	10	1	1	11
All other causes of death	1,403	276	1,993	1,846	49	2,423	3,621
Total	4,055	672	6,048	3,491	208	7,283	13,228
Males	2,209	387	3,201	1,866	106	3,946	7,114
Females	1,846	285	2,847	1,625	102	3,337	6,114
Annual death rate per 1,000	30.48	30.54	19.85	18.88	9.48	32.35	29.94
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:	—	—	—	—	—	—	—
Married	463	159	558	390	24	708	1,587
Widowers	181	36	281	146	12	289	625
Divorced	—	—	—	1	—	—	—
Single	125	39	315	191	6	267	356
Boys	1,364	148	1,938	1,122	64	2,675	4,534
Condition not stated	76	5	109	16	—	7	12
Females:	—	—	—	—	—	—	—
Married	403	102	588	359	26	676	1,472
Widows	230	42	408	165	13	383	847
Divorced	—	—	—	—	—	—	—
Single	73	25	196	175	11	180	251
Girls	1,067	114	1,596	914	47	2,098	3,537
Condition not stated	73	2	59	12	5	—	7

Causes of death.	Rizal.	Romblon.	Samar.	Surigao.	Tarlac.	Tayabas.	Union.	Zambales.
Typhoid fever	15	97	211	3	53	97	20	18
Typhus fever	3	1	17	—	7	29	9	1
Malaria	147	122	930	437	168	839	369	82
Malarial cachexia	37	9	70	1	27	140	107	25
Smallpox	—	8	181	116	—	—	—	1
Measles	1	2	14	3	3	5	11	2
Whooping cough	21	7	150	19	39	23	25	2
Diphtheria and croup	1	3	9	—	—	18	—	1
Asiatic cholera	178	—	3	—	—	1	385	—
Dysentery	20	99	248	142	121	184	251	30
Leprosy	2	—	1	—	—	4	—	1
Beriberi	420	14	207	12	147	355	36	22
Tuberculosis of the lungs	505	77	272	43	416	713	252	236
Tuberculosis of other organs	123	17	66	45	24	54	30	8
Cancer and other malignant tumors	29	2	41	6	5	29	15	1
Cerebral haemorrhage, apoplexy	60	2	5	—	8	48	8	1
Convulsions of infants (under 5 years)	1,576	26	285	115	889	329	361	299
Acute bronchitis	274	29	126	5	106	125	81	9
Diarrhoea and enteritis (under 2 years)	116	11	63	12	89	140	33	13
Diarrhoea and enteritis (2 years and over)	94	24	58	5	45	86	29	31
Diseases of the puerperal state	79	20	151	38	89	91	50	30

## General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Rizal.	Rem-blon.	Samar.	Suri-gao.	Tarlac.	Taya-bas.	Union.	Zam-bales.
Violence:								
Suicide .....	6	5	10	1	49	86	6	2
Not suicide .....	38	16	28	8	41	50	28	12
Homicide .....			6	6	6	10	8	1
All other causes of death .....	2, 181	528	2, 919	472	1, 424	2, 299	1, 523	570
Total .....	5, 926	1, 119	6, 071	1, 489	3, 756	5, 755	3, 637	1, 398
Males .....	3, 151	614	3, 111	792	1, 993	3, 230	1, 887	739
Females .....	2, 775	505	2, 960	697	1, 763	2, 525	1, 750	659
Annual death rate per 1,000 .....	38.34	18.95	22.86	17.71	26.83	28.39	27.50	23.82
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.								
Males:								
Married .....	640	151	924	226	378	920	469	174
Widower .....	275	57	383	47	158	250	152	59
Divorced .....	1		1			4	2	
Single .....	161	58	270	70	91	462	131	60
Boys .....	2, 047	348	1, 451	449	1, 366	1, 551	1, 133	443
Condition not stated .....	27		82			43		3
Females:								
Married .....	588	142	782	179	358	768	477	183
Widows .....	407	62	422	76	220	370	231	108
Divorced .....	1		4			5	8	
Single .....	106	75	199	58	62	186	128	43
Girls .....	1, 652	216	1, 475	384	1, 122	1, 157	906	325
Condition not stated .....	21	10	78		1	39		

## GENERAL BIRTH AND DEATH RATES IN THE PROVINCES, BY NATIONALITIES.

Nationality.	Average of population.	Births.	Annual birth rate per 1,000.	Deaths.	Annual death rate per 1,000.
Americans .....	3, 032	2	0.65	12	3.95
Filipinos .....	6, 887, 418	335, 707	48.74	154, 809	22.47
Other Europeans .....	1, 937	1	.51	40	20.65
Chinese .....	15, 678	15	.95	165	10.52
Other Asiatics .....	505			3	5.94
Other nationalities .....	16, 749				
Total and average .....	6, 925, 319	335, 725	48.47	155, 029	22.38

## SUMMARY, BY CAUSES OF DEATH.\*

Typhoid fever .....	1,967
Typhus fever .....	388
Malaria .....	17,613
Malarial cachexia .....	2,289
Smallpox .....	438
Measles .....	417
Whooping cough .....	1,563
Diphtheria and croup .....	223
Asiatic cholera .....	2,018
Dysentery .....	6,581
Leprosy .....	21
Beriberi .....	4,040
Tuberculosis of the lungs .....	16,205
Tuberculosis of other organs .....	1,804
Cancer and other malignant tumors .....	604
Cerebral haemorrhage, apoplexy .....	581
Convulsions of infants (under 5 years) .....	22,057
Acute bronchitis .....	3,417
Diarrhoea and enteritis (under 2 years) .....	3,441
Diarrhoea and enteritis (2 years and over) .....	2,359
Diseases of the puerperal state .....	2,770
Violence:	
Suicide .....	424
Not suicide .....	1,222
Homicide .....	188
All other causes of death .....	62,554
Total .....	155,029

\* Figures were taken from 36 different provinces reported.

## General return of births and deaths (with causes), etc.—Continued.

## SUMMARY, DEATHS BY CIVIL CONDITIONS.

Males:		
Married .....		18,453
Widowers .....		7,167
Divorced .....		36
Single .....		6,673
Boys .....		49,366
Condition not stated .....		513
Total .....		82,208
Females:		
Married .....		16,937
Widows .....		10,222
Divorced .....		52
Single .....		5,556
Girls .....		39,673
Condition not stated .....		381
Total .....		72,821

REPORT OF SICK AND WOUNDED POOR ATTENDED BY MUNICIPAL PHYSICIANS  
IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE  
CALENDAR YEAR 1914.

Provinces.	Nationality.											
	Amer- icans.		Filipinos.		Other Euro- peans.		Chin- ese.		Other Asia- tics.		Other nationa- lities.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Abra .....												
Agusan .....												
Albay .....			1,115	702	1		13				1	
Ambos Camarines .....			112	88								
Antique .....			71	51								
Bataan .....			100	63								
Batanes .....			188	104								
Batangas .....			711	392			2					
Bohol .....	1	55	1,440	410			13		2		2	
Bulacan .....			2,038	1,581								
Cagayan .....			256	69			1					
Capiz .....												
Cavite .....			696	441			2					
Cebu .....			44	29								
Ilocos Norte .....			284	123							5	3
Ilocos Sur .....			388	223			1					
Iloilo .....												
Isabela .....			4									
Laguna .....			102	99								
Leyte .....			625	309			1					
Misamis .....	2		482	222			1					
Nueva Ecija .....		1	401	392								
Nueva Vizcaya .....			2,940	2,131								
Occidental Negros .....			14	5								
Oriental Negros .....			94	24								
Palawan .....	17		290	250	11		12					
Pampanga .....			414	354			1					
Pangasinan .....			706	319			2					
Rizal .....	1		1,009	696			3		1			
Romblon .....	4	2	99	39	4	1	5					
Samar .....			320	64			3					
Surigao .....												
Tarlac .....	1		176	91			1					
Tayabas .....	1		850	610	1		4					
Union .....			223	114	1							
Zambales .....			380	108								
Total .....	82	3	16,572	10,103	18	1	65		3		8	3

## Report of sick and wounded poor, etc.—Continued.

Provinces.	Nationality.							
	Sex.		Total.	Recoveries.		Deaths.		Total visits.
	Male.	Fe-male.		Male.	Fe-male.	Male.	Fe-male.	
Abra								
Agusan								
Albay	1,130	702	1,832	1,101	667	29	35	2,415
Ambos Camarines	112	88	200	54	32	2		116
Antique	71	51	122	71	49		2	
Bataan	100	63	163	91	61	9		242
Batanes	188	104	292	67	36	4	4	350
Batangas	714	392	1,106	691	378	23	14	2,401
Bohol	1,512	410	1,922	917	395			357
Bulacan	2,038	1,581	3,619	1,454	1,071	75	49	6,633
Cagayan	257	63	326	285	93	3	1	405
Capiz								
Cavite	698	441	1,139	601	368	94	76	2,275
Cebu	44	29	73	42	28			121
Ilocos Norte	289	126	415	267	129	11	8	1,811
Ilocos Sur	389	223	612	377	217	12	6	2,168
Iloilo								
Isabela	4		4					48
Laguna	102	99	201	86	85	17	13	531
Leyte	626	309	935	618	303	9	2	846
Misamis	485	222	707	420	203	13	4	189
Nueva Ecija	401	393	794	393	379	8	14	1,241
Nueva Vizcaya	2,940	2,131	5,071	2,935	2,119	57	54	4,971
Occidental Negros	14	5	19	15	4			
Oriental Negros	94	24	118	41	16	2		413
Palawan	330	250	580	248	80			4
Pampanga	415	354	769	347	286	68	68	1,201
Pangasinan	708	319	1,027	565	213	27	20	2,081
Rizal	1,014	696	1,710	784	534	205	145	3,773
Romblon	112	42	154	69	42	5		466
Samar	323	64	387	304	60	2		2,087
Surigao								
Tarlac	178	91	269	170	96	5	5	760
Tayabas	856	610	1,466	694	490	43	55	2,499
Union	224	114	338	200	105	21	9	1,204
Zambales	380	108	488	304	77	5	5	1,565
Total	16,748	10,110	26,858	14,211	8,616	754	591	43,273

## CHOLERA IN THE PROVINCES.

[Closed January 31, 1916.]

Towns and provinces.	Cases.	Deaths.	Mortality.
			<i>Per ct.</i>
Amburayan: San Gabriel .....	9	5	55.55
Antique:			
Culasi .....	58	43	
Lauaan .....	11	9	
Pandan .....	12	9	
Tibiao .....	9	8	
Total .....	90	69	76.66
Batangas:			
Batangas .....	1	1	
Bolbok .....	40	24	
Ibaan .....	1	1	
Lemery .....	1	1	
Lipa .....	8	12	
Rosario .....	15	9	
Santo Tomas .....	2	2	
Total .....	68	50	73.52
Bohol:			
Carmen .....	1		
Duero .....	2	1	
Garcia Hernandez .....	1	1	
Jagna .....	31	19	
Sierra Bullones .....	16	6	
Total .....	51	27	52.94
Cavite:			
Bacoar .....	4	4	
Cavite .....	5	4	
Kawit .....	1	1	
Silang .....	1	1	
Total .....	11	10	90.90
Cebu:			
Carcar .....	7	6	
Cebu .....	3	2	
Total .....	10	8	60.00
Cotabato:			
Along coast .....	8	7	
Cotabato .....	136	111	
Different places .....	8	4	
Dinaig .....	2	1	
Matanpang .....	6	5	
Total .....	160	128	80.00
Davao:			
Davao .....	36	19	
La Union .....	2	3	
Madaum .....	1		
Mampising .....	2	1	
Samal Island .....	11	4	
Total .....	52	27	51.92
Iloilo: Iloilo .....	3	2	66.66
Isabela de Basilan: Lampinigan .....	32	15	46.87
Jolo:			
Asturias .....	2	2	
Jolo .....	12	5	
Maubu .....	1	1	
Small Island .....	11	5	
Tulay .....	3	2	
Total .....	29	15	51.72
Laguna:			
Alaminos .....	1		
Bay .....	1	1	
Calamba .....	3	3	
Cabuyao .....	2	1	

*Cholera in the provinces—Continued.*

Towns and Provinces.	Cases.	Deaths.	Mortality.
			<i>Per ct.</i>
Laguna—Continued.			
Lilio .....	3	2	
Magdalena .....	5	4	
Majayjay .....	5	4	
Nagcarlan .....	9	8	
Pagsanjan .....	1	1	
Pangil .....	2	2	
San Pablo .....	44	37	
Santa Cruz .....	4	3	
Total .....	80	66	82.50
Lanao:			
Lalabuan .....	87	48	
Malabang .....	20	17	
Momungan .....	20	7	
Taraca .....	17	16	
Total .....	144	88	61.11
Mindanao and Sulu .....	364		
Mindoro:			
Lubang .....	4	4	
Pinamalayan .....	13	13	
Total .....	17	17	100.00
Pampanga:			
Bacolor .....	1	1	
Lubao .....	2	1	
Macabebe .....	6	5	
Mexico .....	1	1	
San Fernando .....	6	5	
Total .....	16	13	81.25
Rizal:			
Malabon .....	2	2	
Mariquina .....	15	7	
Parañaque .....	1	1	
Pasay .....	1	1	
Pasig .....	6	6	
San Juan del Monte .....	1		
Taytay .....	3	1	
Total .....	29	18	62.06
Tayabas:			
Lucban .....	1		
Lucena .....	7	5	
Sariaya .....	1	1	
Tiaong .....	14	11	
Tayabas .....	1	1	
Total .....	24	18	75.00
Union:			
Bacnotan .....	34	27	
Balaoan .....	1	1	
San Juan .....	19	11	
Total .....	52	39	72.22
Zamboanga:			
Ayala .....	12	9	
Cabatangan .....	5	2	
Culianan .....	19	7	
Luyahan .....	1	1	
Margosatubig .....	11	11	
Mercedes .....	3		
Santa Maria .....	2	1	
Talontalon .....	12	5	
Tetuan .....	2	1	
Tubungan .....	3	2	
Zamboanga .....	164	116	
Fort Banga (40 miles from Zamboanga) .....	11	6	
Total .....	245	161	65.72

*Cholera in the provinces—Continued.*

## SUMMARY BY PROVINCES.

Towns and Provinces.	Cases.	Deaths.	Mor- tality.
Amburayan.....	9	5	55.55
Antique.....	90	69	76.66
Batangas.....	68	50	73.52
Bohol.....	51	27	52.94
Cavite.....	11	10	90.90
Cebu.....	10	8	80.00
Cotabato.....	160	128	80.00
Davao.....	52	27	51.92
Iloilo.....	3	2	66.66
Isabela de Basilan.....	32	15	46.87
Jolo.....	29	15	51.72
Laguna.....	80	66	82.50
Lanao.....	144	88	61.11
Mindanao and Sulu.....	364		
Mindoro.....	17	17	100.00
Pampanga.....	16	13	81.25
Rizal.....	29	18	62.06
Tayabas.....	24	18	75.00
Union.....	54	39	72.22
Zamboanga.....	245	161	65.71
Total and average.....	1,488	776	52.15

## REPORTS RECEIVED OF BLIND PERSONS LIVING IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS.

Provinces.	Race.	Males.		Females.		Chil- en.		Single.		Mar- ried.		Wid- owed.		Total.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
Abra.....	Filipino	29	21					12	3	13	8	4	10	50
Agusan.....	do	12	10	3	1			5	7	4	2			22
Albay.....	do	129	92	10	8			68	55	41	11	10	18	221
Ambos Camarines.....	do	57	26	8				17	15	19		13	11	83
Antique.....	do	58	44	4	2			25	16	17	10	12	16	102
Bataan.....	do	32	19					15	12	11	1	6	6	51
Batanes.....	do	18	37		1			2	11	11	11	5	14	55
Batangas.....	do	90	68	7	4			41	29	32	23	10	12	158
Bohol.....	do	146	103	9	2			76	69	45	17	16	15	249
Bulacan.....	do	47	46	1	5			28	20	11	8	7	13	93
Cagayan.....	do	68	56	9	1			21	23	31	10	7	22	124
Capiz.....	do	83	89	3	3			29	30	34	24	17	32	172
Cavite.....	do	66	69	9	7			27	24	24	17	6	18	135
Cebu.....	do	77	69	3	19			44	27	21	8	9	15	146
Ilocos Norte.....	do	39	56	2	3			11	20	17	12	9	21	95
Ilocos Sur.....	do	84	74	11	7			36	30	27	18	10	19	158
Iloilo.....	do	152	126	8	5			63	57	58	28	23	36	278
Isabela.....	do	19	20					4	5	9	6	6	9	39
Laguna.....	do	57	38	10	5			26	13	16	6	5	14	95
Leyte.....	do	177	76	21	6			104	42	38	11	14	17	253
Misamis.....	do	76	50	6	5			35	15	26	17	9	13	126
Nueva Ecija.....	do	52	38	6	2			17	11	20	6	9	19	90
Nueva Vizcaya.....	do	50	26	4	2			7	4	35	15	4	5	76
Occidental Negros.....	do	91	58	6	2			52	37	17	8	61	11	149
Oriental Negros.....	do	85	52	4	1			47	26	24	10	10	15	137
Palawan.....	do	7	6	2	1			3			4	2	1	13
Pampanga.....	do	174	117	14	11			68	47	66	28	26	31	291
Pangasinan.....	do	154	124	23	19			61	41	53	34	17	30	278
Rizal.....	do	80	58	2	5			25	24	40	13	18	16	138
Romblon.....	do	27	13	4	1			9	9	12	2	2	1	40
Samar.....	do	137	86	18	11			81	49	26	12	12	14	223
Surigao.....	do	25	2		2			9	2	11	3			27
Tarlac.....	do	53	47	9	5			13	13	21	13	10	16	100
Tayabas.....	do	86	43	12	9			42	19	25	6	7	9	129
Union.....	do	35	32	4	2			12	10	14	7	5	13	67
Zambales.....	do	32	25	2	2			12	9	13	4	5	10	57
Total.....		2,604	1,916	236	157			1,147	827	882	410	339	522	4,520



**REPORTS RECEIVED OF INSANE PERSONS LIVING IN THE VARIOUS PROVINCES  
OF THE PHILIPPINE ISLANDS AND IN HOSPITALS.**

Provinces and hospitals.	Race.	Males.	Females.	Children.		Single.		Married.		Widowed.		Total.
				Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
Abra	Filipino	38	28	2	1	22	14	12	8	2	5	66
Agusan	do	11	9		1	8	5	3	2		1	20
Albay	do	50	49			41	32	7	10	2	7	99
Ambos Camarine	do	35	32		1	27	21	6	4	2	6	67
Antique	do	61	39	38	19	19	14	4	6			100
Bataan	do	18	12			10	3	6	5	2	4	30
Batanes	do	12	11			11	9	1			2	23
Batangas	do	54	38			37	23	14	6	3	9	92
Bohol	do	259	185	7	1	202	142	41	32	9	10	444
Bulacan	do	34	31		1	26	12	6	10	2	8	65
Cagayan	do	26	22	1		13	9	7	11	5	2	48
Capiz	do	56	73			32	32	19	21	5	20	129
Cavite	do	44	42			25	17	11	14	8	11	86
Cebu	do	211	132	1		176	107	28	19	6	6	343
Hospicio de San Jose:												
Manila	(a)	39	31									70
Cavite Sanatorium	(b)											354
Ilocos Norte	Filipino	89	36	1	2	63	25	21	6	4	3	125
Ilocos Sur	do	90	55	1		59	34	21	13	9	8	145
Iloilo	do	78	63			58	37	18	11	2	15	141
Isabela	do	6	7			2	3	4	2		2	13
Laguna	do	36	38		1	21	14	11	9	4	14	74
Leyte	do	102	57	3		66	29	29	17	4	11	159
Misamis	do	82	50	11	6	52	26	14	8	5	10	132
Nueva Ecija	do	29	23			24	12	4	8	1	3	52
Nueva Vizcaya	do	17	4	1		8	2	7	1	1	1	21
Occidental Negros	do	49	33	2		29	13	8	11	10	9	82
Oriental Negros	do	109	49			84	35	17	10	8	4	158
Palawan	do	13	11	1		8	9	2	2	2	1	24
Pampanga	do	26	33			14	14	9	12	3	7	59
Pangasinan	do	164	108	5	8	73	41	63	37	23	22	272
Rizal	do	33	28			23	14	6	10	4	4	61
Romblon	do	7	3			3	1	1	2	3		10
Samar	do	103	57	7	3	77	36	15	13	4	5	160
San Lazaro Hospital	(c)	251	48	1	1	127	17	106	16	17	14	299
Surigao	Filipino	10	3	6				2	3	2		13
Tarlac	do	8	5			2	4	6			1	13
Tayabas	do	125	102	5	8	98	69	14	20	8	5	227
Union	do	38	30			17	22	16	7	5	1	68
Zambales	do	18	18	1		12	9	5	7		2	36
Total		2,431	1,595	94	53	1,569	905	564	373	165	233	4,380

<sup>a</sup> Europeans, 6; Filipinos, 64; total, 70.

<sup>b</sup> Race not stated.

<sup>c</sup> Americans, 7; Filipinos, 280; Europeans, 5; Chinese, 5; others, 2; total, 299.

**REPORT OF HOSPICIO DE SAN JOSE, INSANE DEPARTMENT.**

In hospicio January 1, 1915.....	401
Admitted .....	180
Discharged .....	113
Died .....	44
Remaining at the end of the year.....	424

**REPORT OF SERA.**

	Bottles.	Am-poules.	Units.
On hand at the beginning of year .....	99		
Received from the Bureau of Science .....		3	5,982,794
Taken up .....			209,500
Total to be accounted for .....	99	3	6,192,294
Issued .....		8	5,798,794
Condemned .....	99		
Remaining at end of the year.....			393,500

# **AMOUNT OF VACCINE VIRUS DISTRIBUTED BY THE PHILIPPINE HEALTH SERVICE.**

	Units.
Amount on hand January 1, 1915.....	17,550
Received from the Bureau of Science.....	1,846,500
Total to be accounted for.....	1,864,050
Distributed as per itemized statement.....	1,842,100
Remaining on hand December 31, 1915.....	21,950

## **PLACES AT WHICH VACCINE VIRUS WAS DISTRIBUTED.**

Province:		Province:	
Albay .....	106,500	Palawan .....	3,000
Ambos Camarines .....	53,800	Pampanga .....	70,450
Bataan .....	6,400	Pangasinan .....	150,900
Batangas .....	104,000	Rizal .....	23,500
Benguet .....	6,500	Romblon .....	14,800
Bulacan .....	58,000	Samar .....	77,550
Cagayan .....	14,000	Sorsogon .....	8,000
Capiz .....	1,000	Tarlac .....	20,700
Cavite .....	17,100	Tayabas .....	68,200
Cebu .....	600,000	Union .....	11,850
Ilocos Norte .....	22,700	Zambales .....	9,900
Ilocos Sur .....	19,300		
Iloilo .....	60,000	Total .....	1,755,550
Isabela .....	32,000		
Laguna .....	43,100	Manila:	
Leyte .....	105,000	Health districts .....	53,550
Masbate .....	1,400	Other institutions .....	33,000
Mindanao .....	10,400		
Mountain .....	3,000	Total .....	86,550
Nueva Ecija .....	28,200		
Nueva Vizcaya .....	4,300	Grand total .....	1,842,100

## **VACCINATIONS, CALENDAR YEAR 1915.**

[Closed January 15, 1916.]

	Vaccina- tions.	Inspec- tions.	Positive.	Nega- tive.
<i>City of Manila.</i>				
Health district:				
No. 1, Intramuros .....	8,685			
No. 2, Meisic .....	19,228	3,915	2,569	1,346
No. 4, Sampaloc .....	2,292	679	442	237
No. 5, Tondo .....	8,977	5,162	3,923	1,239
No. 6, Paco .....	9,406	3,768	1,697	2,071
Total .....	48,588	13,524	8,631	4,893
<i>Provinces.</i>				
Agusan .....	13,099	3,265	1,379	1,886
Albay .....	74,728	58,979	46,639	12,610
Ambos Camarines .....	50,531	31,413	21,134	10,279
Batangas .....	134,294	97,825	63,770	34,055
Bohol .....	112,269	99,565	45,495	54,070
Bukidnon .....	7,216	1,145	826	319
Cagayan .....	17,645	13,439	6,433	7,006
Capiz .....	11,826	9,550	7,493	2,057
Cebu .....	212,756	59,768	42,357	17,411
Laguna .....	43,626	37,785	26,999	10,786
Leyte .....	28,606	3,948	2,444	1,504
Misamis .....	35,406	25,862	13,899	11,963
Nueva Ecija .....	13,792	9,029	5,822	3,209
Nueva Vizcaya .....	4,087	4,087	2,722	1,365
Occidental Negros .....	13,305	6,731	4,865	1,866
Oriental Negros .....	28,968	28,876	17,869	11,007
Pampanga .....	71,477	60,662	40,243	20,419
Pangasinan .....	152,138	135,262	96,025	39,237
Samar .....	54,435	11,373	6,184	5,189
Sorsogon .....	8,613	4,221	1,065	3,156
Tarlac .....	17,790	16,924	12,480	4,444
Tayabas .....	64,937	49,534	35,205	14,329
Union .....	7,339	5,685	2,907	2,778
Total .....	1,178,883	774,928	503,983	270,945
Grand total .....	1,227,471	778,452	512,614	275,838

Some reports not yet received. Final table will appear in the report for the first quarter of 1916.

## MORTALITY AMONG GOVERNMENT EMPLOYEES.

	Amer- icans.	Fili- pinos.
Average number of employees .....	1,847	7,683
Deaths reported:		
From illness .....	8	32
From violence .....	1	1
Total .....	4	33
Death from illness:		
Average years of service .....	10.51	5.90
Average age at death .....	37.64	32.05
Annual death rate per 1,000 .....	1.62	4.16
Deaths from violence:		
Average years of service .....	13.96	12.97
Average age at death .....	55.25	59.70
Annual death rate per 1,000 .....	0.54	0.13
Total deaths:		
Average years of service .....	10.76	6.04
Average age at death .....	39.86	32.66
Annual death rate per 1,000 .....	2.16	4.29
Both nationalities:		
Population .....		9,530
Deaths .....		37
Average years of service .....		6.12
Average age at death .....		35.12
Annual death rate per 1,000 .....		3.88

Males 23; females 4; total 37.

## BAGUIO HOSPITAL.

## HOSPITAL CASES.

Diseases.	Remain- ing.	Admitted.	Died.	Transferred.	Discharged.	Escaped.	Total.
1. Typhoid fever .....	1	13	1	—	13	—	—
4. Malaria .....	1	57	—	—	55	—	2
4a. Malarial cachexia .....	—	2	1	—	1	—	—
6. Measles .....	—	2	—	—	2	—	—
10. Influenza .....	—	2	—	—	2	—	—
14. Dysentery .....	1	32	3	—	27	—	3
17. Leprosy .....	—	2	—	—	2	—	—
19. Other epidemic diseases .....	—	8	—	—	8	—	—
20. Purulent infection and septichæmia .....	—	5	2	—	3	—	—
27. Beriberi .....	—	4	—	—	4	—	—
28. Tuberculosis of the lungs .....	7	63	—	—	68	—	2
31. Abdominal tuberculosis .....	1	4	—	—	5	—	—
34. Tuberculosis of other organs .....	—	4	—	—	4	—	—
37. Syphilis:	—	—	—	—	—	—	—
(a) Primary .....	—	2	—	—	2	—	—
(c) Tertiary .....	1	3	—	—	4	—	—
38b. Gonococcus infection .....	—	9	—	—	9	—	—
45. Cancer and other malignant tumors of other organs or of organs not specified .....	1	—	—	—	1	—	—
47. Acute articular rheumatism .....	1	6	—	—	6	—	1
56. Alcoholism (acute or chronic) .....	—	4	—	—	3	—	1
61. Simple meningitis .....	—	2	1	—	1	—	—
64. Cerebral hæmorrhage apoplexy .....	1	2	—	—	3	—	—
66. Paralysis without specified cause .....	—	1	—	—	1	—	—
69. Epilepsy .....	—	2	—	—	2	—	—
71. Convulsions of infants .....	—	2	1	—	1	—	—
73. Neuralgia and neuritis .....	—	4	—	—	3	—	—
74. Other diseases of the nervous system .....	—	4	—	—	4	—	—
75c. Other diseases of the eyes and their annexa .....	—	13	—	—	13	—	—
76. Diseases of the ears .....	—	3	—	—	3	—	—
79. Organic diseases of the heart .....	1	9	1	—	9	—	—
83. Diseases of the veins (varices, hæmorrhoids, phle- bitis etc.) .....	—	2	—	—	2	—	—
84. Diseases of the lymphatic system (lymphangitis, etc.) .....	—	2	—	—	2	—	—
89. Acute bronchitis .....	—	24	—	—	24	—	—
91. Bronchopneumonia .....	1	8	1	—	8	—	—
92. Pneumonia .....	—	7	3	—	4	—	—
93. Pleurisy .....	—	6	—	—	6	—	—
96. Asthma .....	—	3	—	—	3	—	—
99b. Other diseases of the mouth and annexa .....	—	4	—	—	3	—	1

*Baguio Hospital—Continued.*

## HOSPITAL CASES—Continued.

Diseases.	Remaining.	Admitted.	Died.	Transferred.	Discharged.	Escaped.	Total.
100. Diseases of the pharynx.....		6			6		
102. Ulcer of the stomach.....		1			1		
103. Other diseases of the stomach (cancer excepted).....	1	29			29		1
105. Diarrhoea and enteritis (2 years and over).....		11			11		
106. Ankylostomiasis.....		5			5		
107. Intestinal parasites.....		49			46		3
108. Appendicitis and typhilitis.....		13			13		
109. Hernia, intestinal obstruction.....		1			1		
110a. Diseases of the anus and faecal fistula.....		1			1		
110b. Other diseases of the intestines.....		22			22		
114. Biliary calculi.....		2	1		1		
118. Other diseases of the digestive system (cancer and tuberculosis excepted).....		4			4		
119. Acute nephritis.....		5	1		4		
120. Bright's disease.....		8			8		
122. Other diseases of the kidneys and annexa.....		5			5		
123. Calculi of the urinary passages.....		3			3		
124. Diseases of the bladder.....		3			3		
127. Nonvenereal diseases of the male genital organs.....	1				1		
128. Uterine hæmorrhage (nonpuerperal).....		1			1		
130b. Other diseases of the uterus.....		4			4		
131. Cysts and other tumors of the ovary.....		3			3		
132. Salpingitis and other diseases of the female genital organs.....		12			12		
134a. Normal labor.....		45			43		2
134b. Accidents of pregnancy.....		16			16		
135. Puerperal hæmorrhage.....		2			2		
136. Other accidents of labor.....		18	1		17		
138. Puerperal albuminuria and convulsions.....		2			2		
139. Puerperal phlegmasia alba dolens, embelus, sudden death.....		1			1		
141. Puerperal diseases of the breast.....		5			5		
143. Furuncle.....		8			8		
144. Acute abscess.....		17			16		1
145a. Tricophytosis.....		7			7		
145b. Scabies.....		6			6		
145c. Other diseases of the skin and annexa.....		8			8		
146. Diseases of the bones (tuberculosis excepted).....		2			2		
147. Diseases of the joints (tuberculosis and rheumatism excepted).....		2			2		
148. Amputations.....		5			5		
149. Other diseases of the organs locomotion.....		5			5		
150(3) Other congenital malformations.....		2			2		
151A. Nurslings discharged from the hospital without disease.....		55	1		52		2
151(2). Congenital debility.....		4	2		2		
153. Lack of care.....		3			2		1
164. Poisoning by food.....		4			4		
167. Burns (conflagration excepted).....		6			6		
171. Traumatism by cutting or piercing instruments.....	1	40			41		
172. Traumatism by fall.....		15			15		
173. Traumatism in mines and quarries.....		5	1		3		1
174. Traumatism by machines.....		9			6		3
175. Traumatism by other crushing (vehicles, railways, landslides, etc.).....	1	26			27		
176. Injuries by animals.....		4			3		1
183. Homicide by cutting or piercing instruments.....		1			1		
185a. Dislocations.....		4			4		
185b. Sprains.....		5			5		
185c. Fractures (cause not specified).....		11			11		
186. Other external violence.....		7			6		1
189a. Cause of death not specified or ill defined.....		5	2		3		
189b. No diseases, feigned disease.....	1	8			8		1
Total.....	22	870	23		842		27

## Baguio Hospital—Continued.

## OUTDOOR CLINIC.

4. Malaria .....	158
8. Whooping cough .....	3
10. Influenza .....	43
13. Cholera nostras .....	73
19. Other epidemic diseases .....	14
20. Purulent infection and septicaemia .....	1
25. Mycoses .....	1
27. Beriberi .....	4
28. Tuberculosis of the lungs .....	95
34. Tuberculosis of other organs .....	2
37. Syphilis:	
(a) Primary .....	3
(b) Secondary .....	7
(c) Tertiary .....	6
(d) Hereditary .....	1
38a. Soft chancre .....	17
38b. Gonococcus infection .....	56
39. Cancer and other malignant tumors of the buccal cavity .....	3
40. Cancer and other malignant tumors of the stomach, liver .....	1
45. Cancer and other malignant tumors of other organs or of organs not specified .....	1
46. Other tumors (tumors of the female genital organs excepted) .....	2
47. Acute articular rheumatism .....	42
51. Exophthalmic goitre .....	16
52. Addison's disease .....	1
54. Anaemia, chlorosis .....	1
56. Alcoholism (acute or chronic) .....	6
71. Convulsions of infants .....	1
73. Neuralgia and neuritis .....	13
74. Other diseases of the nervous system .....	72
75a. Follicular conjunctivitis .....	5
75c. Other diseases of the eyes and their annexa .....	157
76. Diseases of the ears .....	23
79. Organic diseases of the heart .....	5
83. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.) .....	7
84. Diseases of the lymphatic system (lymphangitis, etc.) .....	1
86. Diseases of the nasal fossae .....	70
87. Diseases of the larynx .....	22
89. Acute bronchitis .....	595
90. Chronic bronchitis .....	34
93. Pleurisy .....	3
96. Asthma .....	4
99a. Diseases of the teeth and gums .....	164
99b. Other diseases of the mouth and annexa .....	17
100. Diseases of the pharynx .....	125
103. Other diseases of the stomach (cancer excepted) .....	295
104. Diarrhoea and enteritis (under 2 years) .....	3

## BAYOMBONG HOSPITAL.

## HOSPITAL CASES.

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
1. Typhoid fever .....		3		3	
2. Typhus fever .....		1		1	
4. Malaria .....		47		47	
4a. Malarial cachexia .....		10	1	9	
10. Influenza .....		1		1	
14. Dysentery .....		4		4	
19. Other epidemic diseases .....		6	1	5	
28. Tuberculosis of the lungs .....	1	3		4	
44. Cancer and other malignant tumors of the skin .....	1			1	
47. Acute articular rheumatism .....	1	9		10	
48. Chronic rheumatism and gout .....		1		1	
54. Anæmia, chlorosis .....	1	11		12	
61a. Cerebrospinal fever .....		1		1	
68. Other forms of mental alienation .....		1		1	
69. Epilepsy .....		2		2	
71. Convulsions of infants .....		1		1	
73b. Neuralgia and neuritis .....		5		5	
76. Diseases of the ears .....		4		4	
86. Diseases of the nasal fossae .....		1		1	
89. Acute bronchitis .....		5		5	
96. Asthma .....		1		1	
99b. Other diseases of the mouth and annexa .....		2		2	
102. Ulcer of the stomach .....		1		1	
104. Diarrhoea and enteritis (under 2 years) .....		2	1	1	
105. Diarrhoea and enteritis (2 years and over) .....		3		3	
107. Intestinal parasites .....		2		2	

## Bayombong Hospital—Continued.

## HOSPITAL CASES—Continued.

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
118. Other diseases of the digestive system (cancer and tuberculosis excepted)		1		1	
123. Calculi of the urinary passages		2		1	1
124. Diseases of the bladder		1		1	
130b. Other diseases of the uterus		2		2	
132. Salpingitis and other diseases of the female genital organs		4		4	
134b. Accidents of pregnancy		2		2	
136. Other accidents of labor		2		2	
137. Puerperal septichæmia		1		1	
138. Puerperal albuminuria and convulsions		1		1	
144. Acute abscess		3		2	1
145c. Other diseases of the skin and annexa	1	3		3	
152. Other diseases peculiar to early infancy		3		3	
165a. Venomous bites and stings		1		1	
167. Burns (conflagration excepted)		1		1	
170. Traumatism by firearms		2		2	
171. Traumatism by cutting or piercing instruments		2		2	
174. Traumatism by machines		4		3	1
175. Traumatism by other crushing (vehicles, railways, land-slides, etc.)		3	1	1	1
176. Injuries by animals		3	1		2
186. Other external violence		4		4	
Total	5	177	5	171	6

Patients treated in the outpatient clinic at the Bayombong Hospital..... 5,414  
 Cases treated in the outpatient clinic at the Bayombong Hospital..... 3,169

## BONTOC HOSPITAL.

## HOSPITAL CASES.

Diseases.	Remaining at last report.	Admitted.	Discharged.	Died.	Remaining.
1. Typhoid fever		11	8	2	1
4. Malaria	2	117	115	2	1
4a. Malaria cachexia	1	1	2		
6. Measles		1		1	
10. Influenza		4	4		
14. Dysentery		20	16	1	3
17. Leprosy		11	11		
19. Other epidemic diseases	1	12	13		
20. Purulent infection and septichæmia		8	8		
25. Mycoses		2	1		1
27. Beriberi	1	5	5	1	
28. Tuberculosis of the lungs	1	5	3	3	
34. Tuberculosis of other organs		1	1		
35. Disseminated tuberculosis		1		1	
37b. Syphilis:					
Secondary	1	1	2		
37c. Tertiary		2	2		
38b. Gonococcus infection		3	3		
45. Cancer and other malignant tumors of other organs or of organs not specified		2	2		
46. Other tumors (tumors of the female genital organs excepted)		4	4		
47. Acute articular rheumatism		2	2		
48. Chronic rheumatism and gout		11	10		1
54. Anæmia, chlorosis		2	2		
56. Alcoholism (acute or chronic)		1	1		
63. Other diseases of the spinal cord		1	1		
64. Cerebral hæmorrhage, apoplexy		1	1		
74. Other diseases of the nervous system		1	1		
75c. Other diseases of the eyes and their annexa		20	19		1
76. Diseases of the ears		2	2		
79. Organic diseases of the heart		1	1		
84. Diseases of the lymphatic system (lymphangitis, etc.)		3	3		
87. Diseases of the larynx		3	2		1
88. Diseases of the thyroid body		3	3		

## Bontoc Hospital—Continued.

## HOSPITAL CASES—Continued.

Diseases.	Remaining at last report.	Admitted.	Discharged.	Died.	Remaining.
89. Acute bronchitis .....		21	20		1
90. Chronic bronchitis .....		1	1		
91. Broncho-pneumonia .....		6	6		
92. Pneumonia .....		4	2	2	
99. Other diseases of the mouth and annexa .....		12	12		
100. Diseases of the pharynx .....		6	6		
103. Other diseases of the stomach (cancer excepted) .....		49	49		
105. Diarrhoea and enteritis (2 years and over) .....		16	16		
107. Intestinal parasites .....		8	7	1	
108. Appendicitis and typhilitis .....		1	1		
109. Hernia, intestinal obstruction .....		1	1		
110b. Other diseases of the intestines .....		1	1		
113. Cirrhosis of the liver .....		1	1		
117. Simple peritonitis (nonpuerperal) .....				1	
119. Acute nephritis .....		2	2		
120. Bright's diseases .....		5	5		
124. Diseases of the bladder .....		1	1		
125. Diseases of the urethra, urinary abscess, etc .....		1	1		
127. Nonvenereal diseases of the male genital organs .....		2	2		
130b. Other diseases of the uterus .....		3	3		
131. Cysts and other tumors of the ovary .....		2	2		
132. Salpingitis and other diseases of the female genital organs .....		1	1		
134b. Accidents of pregnancy .....		3	3		
135. Puerperal hæmorrhage .....	1	14	15		
136. Other accidents of labor .....		1	1		
137. Puerperal septichæmia .....		1	1		
140. Following childbirth (not otherwise defined) .....		4	3		1
143. Furuncle .....		15	15		
144. Acute abscess .....		3	3		
145a. Trichophytosis (tineas and peladas) .....	8	26	34		
145c. Other diseases of the skin and annexa .....	1	52	51		2
146. Diseases of the bones (tuberculosis excepted) .....		2	2		
147. Diseases of the joints (tuberculosis and rheumatism excepted) .....		1	1		
148. Amputations .....		2	2		
149. Other diseases of the organs of locomotion .....	1	7	8		
151b. Congenital debility, icterus, and sclerema .....		3	1	1	1
154. Senility .....		2	1		1
165b. Other acute poisonings .....		3	3		
167. Burns (conflagration excepted) .....		2	1		1
170. Traumatism by firearms .....		1	1		
171. Traumatism by cutting or piercing instruments .....		7	7		
172. Traumatism by fall .....		3	3		
177b. Starvation .....	2		2		
185c. Fractures (cause not specified) .....		10	10		
186. Other external violence .....		5	5		
189a. Cause of death not specified or ill-defined .....	1	50	50		1
Total .....	21	624	610	17	18

Patients treated in the outdoor department at the Bontoc Hospital .....	14,820
Cases treated in the outdoor department at the Bontoc Hospital .....	1,351
Cases treated in the provincial health stations by medical officers or assistant sanitary inspectors, Mountain Province .....	23,910

## LABORATORY EXAMINATIONS.

Specimen.	Amer-icans.	Euro-peans.	Fili-pinos.	Igorots.	Total.
Blood .....	18	1	121	324	464
Fæces .....	16	1	109	208	334
Pus .....	6		4	6	16
Sputum .....	4		20	12	36
Urine .....	17	1	126	143	287
Total .....	61	3	380	693	1,137

## MISCELLANEOUS.

Patients admitted .....	625
Patients remaining January 1, 1915 .....	21
Deaths .....	19
Major operations performed .....	6

**BUTUAN HOSPITAL.**  
**HOSPITAL CASES.**

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
1. Typhoid fever .....		3			3	
4. Malaria .....	3	121	7	1	112	4
9. Diphtheria and croup .....		1			1	
14. Dysentery .....		4			4	
19. Other epidemic diseases .....		3			2	1
27. Beriberi .....	1	5	2		4	
34. Tuberculosis of other organs .....	1	1	1		1	
37. Syphilis .....		1				1
46. Other tumors (tumors of the female genital organs excepted) .....	1	5			6	
54. Anaemia, chlorosis .....		2			2	
60. Encephalitis .....		1	1			
66. Paralysis without specified cause .....		1			1	
68. Other forms of mental alienation .....		3			3	
73a. Hysteria .....		1			1	
73b. Neuralgia and neuritis .....		1			1	
75c. Other diseases of the eyes and their annexa .....		1			1	
76. Diseases of the ears .....		3			3	
83. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.) .....		1			1	
84. Diseases of the lymphatic system (lymphangitis etc.) .....		2			2	
86. Diseases of the nasal fossae .....		1			1	
87. Diseases of the larynx .....		1			1	
89. Acute bronchitis .....		1			1	
90. Chronic bronchitis .....		5			5	
91. Bronchopneumonia .....		1			1	
92. Pneumonia .....		2			2	
96. Asthma .....		1			1	
99a. Diseases of the teeth and gums .....		2			2	
99b. Other diseases of the mouth and annexa .....		3			3	
103. Other diseases of the stomach (cancer excepted) .....		4			4	
106. Ankylostomiasis .....		2			1	1
108. Appendicitis and typhlitis .....		2			2	
109. Hernia, intestinal obstruction .....		2			2	
110a. Diseases of the anus and faecal fistulas .....		2			1	1
115. Other diseases of the liver .....		2			2	
120. Bright's disease .....		4			4	
127. Nonvenereal diseases of the male genital organs .....		9			9	
130b. Other diseases of the uterus .....		1			1	
131. Cysts and other tumors of the ovary .....		1			1	
134a. Normal labor .....		2			2	
135. Puerperal haemorrhage .....		3			3	
142. Gangrene .....		1	1			
143. Furuncle .....		1			1	
144. Acute abscess .....		9			9	
145c. Other diseases of the skin and annexa .....		2			2	
165b. Other acute poisonings .....		2			2	
171. Traumatism by cutting or piercing instruments .....	2	11			12	1
185c. Fractures (cause not specified) .....		1			1	
186. Other external violence .....		1			1	
Total .....	8	239	12	1	225	9

Patients treated in the outdoor department at the Butuan Hospital, 6,645.

**CHINESE HOSPITAL SICK REPORT.**

[Dr. Tee Han Kee, physician in charge.]

Status.	Male.	Female.	Total.
In hospital at last report .....	19		19
Received .....	475		475
Discharged .....	376		376
Transferred .....			
Died .....	75		75
Remaining in hospital .....	43		43



## CULION LEPER COLONY.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	
Remaining at the beginning of year	1		2		2,303	1,278	2		11	5	3,602
Admitted			2		377	176					555
Readmitted					33	1					34
Born					35	34					69
Died					371	156	1		2		530
Discharged					14	13					27
Transferred											
Escaped					23						23
Remaining at end of year	1		4		2,340	1,320	1		9	5	3,680

PHILIPPINE GENERAL HOSPITAL.  
DEPARTMENT OF EYE, EAR, NOSE, AND THROAT.

	Charity.	Pay.		Total.
		Government.	Private.	
Operations:				
Major	241	16	23	280
Minor	242	9	21	272
Emergency major	4			4
Emergency minor	62	2		64
Cleaning and dressings, including suturing	10,353	28	53	10,434
Special service (dark room, refracture, etc.)	96	3		99
Anaesthesia:				
General	116	11	17	144
Local	395	14	23	432
Total	11,509	83	137	11,729

## CLINICAL RECORD DIVISION.

Classes of patients.	Med-ical.	Sur-gical.	Obstet-rical.	Eye, ear, etc.	Total.
Charity:					
Adults	1,333	1,798	702	442	4,275
Children	517	175		74	766
Government:					
Free	545	266	81	80	972
Pay	296	284	83	31	694
Private pay	158	184	41	54	437
Total	2,849	2,707	907	681	7,144

## CLINICAL LABORATORY.

Blood	13,469
Faeces	5,250
Urine	5,596
Sputum	1,723
Miscellaneous	1,812
Total	27,850

## DEPARTMENT OF OBSTETRICS.

	Official.	Char-ity.	Pri-vate.	Total.	Nationality.		
					Ameri-cans.	Fili-pinos.	All others.
Abortions and miscarriages	12	61	4	77	4	71	2
Pregnancy	14	74	3	91	2	86	3
Parturient women	129	513	30	672	21	635	16
Postpartum women	8	53	4	65	1	64	
Births	130	520	30	680	21	643	16
Living children	122	459	27	608	21	571	16
Stillborn	8	64	3	73		75	
Deaths	7	55	5	67		66	1
Mothers	3	34	2	39		39	
Infants	4	21	3	28		27	1

## Philippine General Hospital—Continued.

## DEPARTMENT OF OBSTETRICS, OUTPATIENT CHARITY SERVICE.

	Total.	Re- covered.	Died.	Trans- ferred.	Refused.
<b>Pregnancy:</b>					
Normal	189	124		57	8
Abnormal—					
Ascariasis	1	1			
Beriberi	1			1	
Bronchitis	1			1	
Dysentery	2			2	
Footling presentation	1			1	
Gastralgia (ascariasis?)	2	2			
Placenta praevia	6		1	4	1
Transverse	2			2	
<b>Abortion:</b>					
Complete	4	3		1	
Incomplete	6	2		4	
Threatened	1			1	
<b>Miscarriage:</b>					
Complete	3	3			
Incomplete	2	1		1	
Threatened	2	1		1	
<b>Parturition:</b>					
Multiple	2	1		1	
Premature	4	4			
Normal—					
L. O. A	153	133		17	3
L. S. A	3	3			
L. O. P	1	1			
R. O. A	30	30			
R. O. P	5	5			
R. O. T	2	2			
Breech	5	3		2	
Twin, multiple	3	3			
Undetermined position	27	12		14	1
Abnormal					
Breech presentation	2	1		1	
Dry labor	2			2	
Eclampsia	1	1			
Hydramnios	1			1	
Hydrocephalus	1	1			
Inertia uteri	1	1			
Laceration, perinæum, second degree	1	1			
Placenta praevia	2			2	
Postpartum hæmorrhage	5	3	1	1	
Prolapsed cord	2			2	
Retained placenta	11	4		7	
Transverse presentation	4			4	
<b>Puerperium:</b>					
Normal	167	133		8	26
Abnormal—					
Hæmorrhage	2			2	
Infection puerperal	3	1		2	
Local infection of perinæum	1			1	
Mastitis (right side)	1	1			
<b>New-born child:</b>					
Hæmorrhage of cord	1		1		
Hydrocephalus	1		1		
Normal	329	295	3	12	19
Stillborn	18		18		
Weakling	10	5	5		
Diseases—					
Indigestion	2	1			1
Ophthalmia neonatorum	2	2			
<b>Complication:</b>					
Laceration of perinæum, second degree	1	1			
<b>Injuries:</b>					
Laceration of perinæum—					
First degree	2	2			
Second degree	1	1			
<b>Operation:</b>					
Manual extraction of placenta	3	3			
Repair of perinæum	2	2			
<b>Deaths:</b>					
Atelectasis	1		1		
Infantile convulsions	1		1		
Maternal, postpartum hæmorrhage	1		1		
Faetal—					
Congenital debility	2		2		
Stillborn	1		1		

A total of 802 medical visits were made upon obstetrical cases. A total of 6,552 obstetrical calls were made by the visiting nurses.

*Philippine General Hospital—Continued.*

## DEPARTMENT OF SURGERY.

	Charity.	Pay.		Total.
		Govern- ment.	Private.	
Operations:				
Major .....	550	13	5	568
Minor .....	671	28	26	725
Emergency major .....	60	3	2	55
Emergency minor .....	378	16	5	399
Cleaning and dressings, including suturing .....	15,389	185	217	15,791
Special service (dark room, salvarsan, etc.) .....	28	3	12	43
Anaesthesia:				
General .....	826	34	21	881
Local .....	344	7	11	362
Total .....	18,236	289	299	18,824

## PHYSICAL THERAPY DEPARTMENT.

	Official.	Private.	Charity.	Total.	Amount.
Skiagrams:					
Abdomen .....	109	5	279	393	P250.00
Chest .....	9	4	163	176	135.00
Extremities .....	85	11	302	398	262.00
Head .....	9		83	92	
Larynx .....			1	1	
Miscellaneous .....	2			2	
Pelvis .....	7		3	10	
Perineal sinus .....			3	3	
Spine .....	12		32	44	30.00
Throat .....			4	4	
Total .....	233	20	870	1,123	677.00
Treatments:					
Electrolysis .....	52	7		59	36.00
Faradic .....	15	2		17	7.50
Fluoroscopy .....		1		1	6.00
Galvanic .....	27	5	6	38	30.00
Galvano-faradic .....	30	22	346	398	89.25
High frequency .....	112	3	112	227	22.50
Roentgen .....	43		23	66	
Vibro-massage .....	16	8	6	30	32.25
X-irradiation .....	97	8	89	194	70.00
Total .....	392	56	582	1,030	293.50
Grand total .....	625	76	1,452	2,153	970.50

## Philippine General Hospital—Continued.

## FREE DISPENSARY DIVISION.

Clinics.	First visit.	More than one visit.	Patients.
Children .....	5,274	3,786	9,060
Dental .....	3,074	1,946	5,020
Dermatology .....	1,116	598	1,714
Eye, ear, nose, and throat .....	5,824	11,698	17,522
Genito-urinary .....	548	1,182	1,730
Gynecological .....	1,282	2,901	4,183
Medical .....	11,348	7,785	19,133
Neurology .....	18	15	33
Obstetrical .....	283	143	426
Surgical .....	5,882	18,002	23,884
Tuberculosis .....	373	1,434	1,807
Total .....	35,022	49,490	* 84,512
Government employees .....			5,520
Surgical clinic:			
Minor operations .....			1,054
Dressings .....			22,805
Eye, ear, nose, and throat clinic:			
Minor operations .....			210
Dressings .....			10,701
Refractions .....			72
School children's clinic .....			8,680
Tuberculosis clinic .....			6,289
School children admitted in—			
Children's clinic .....			1,172
Dental clinic .....			1,667
Dermatology clinic .....			619
Eye, ear, nose, and throat clinic .....			2,302
Genito-urinary clinic .....			88
Gynecological clinic .....			37
Medical clinic .....			2,187
Surgical clinic .....			1,456
Tuberculosis clinic .....			93
Total .....			9,621

\* Of this total, 40,549 were males, 25,078 were females, and 18,885 were children.

## INFORMATION DIVISION.

Ambulance service:	
Routine calls .....	1,705
Emergency calls .....	1,016
Total .....	2,721
Patients transferred to—	
Philippine General Hospital .....	162
Other hospitals .....	256
Patients refusing to be transferred .....	165
Patients not accepted .....	826
Wrong address .....	68
Physicians with ambulance .....	2,885
Admissions:	
Charity .....	4,931
Government free .....	1,082
Government pay .....	668
General hospital pay .....	419
Private pay .....	8
Total .....	7,103
Refused admissions:	
No beds .....	901
Chronic incurable .....	197
Infectious .....	83
Other reasons .....	440
Total .....	1,621
Patients prescribed for (outpatients):	
Charity .....	4,874
Government free .....	2,196
Government pay .....	5
Private pay .....	2
Total .....	7,077

## Philippine General Hospital—Continued.

TABLE OF DISEASES.

Diseases.	Cases.	Dis- charged.	Died.	Trans- ferred.	Deserted.
1. Typhoid fever.....	168	116	51	1	
2. Typhus fever.....	4	4			
4a. Malarial cachexia.....	241	227	13	1	
5. Smallpox.....	1	1			
6. Measles.....	12	1		11	
8. Whooping cough.....	23	17	4	2	
9. Diphtheria and croup.....	4		1	3	
9a. Croup.....	2			2	
10. Influenza.....	33	33			
12. Asiatic cholera.....	2		1	1	
14. Dysentery.....	597	561	33	1	2
17. Leprosy.....	2			2	
18. Erysipelas.....	5	4	1		
19. Other epidemic diseases.....	86	80	2	4	
20. Purulent infection and septicaemia.....	61	38	23		
24. Tetanus.....	8	1		7	
25. Mycoses.....	12	12			
27. Beriberi.....	94	75	19		
28. Tuberculosis of the lungs.....	505	432	53	20	
29. Acute miliary tuberculosis.....	5	1	4		
30. Tuberculosis meningitis.....	20	9	11		
31. Abdominal tuberculosis.....	47	31	14	2	
32. Pott's disease.....	18	16	1	1	
33. White swellings.....	21	19	2		
34. Tuberculosis of other organs.....	173	154	15	2	2
35. Disseminated tuberculosis.....	1		1		
36. Rickets.....	16	6	10		
37. Syphilis:					
37a. Primary.....	7	7			
37b. Secondary.....	48	45	2	1	
37c. Tertiary.....	123	116	5	2	
37d. Hereditary.....	11	10	1		
37e. Period not stated.....	35	35			
38a. Soft chancre.....	5	5			
38b. Gonococcus infection.....	141	134	5	1	1
39. Cancer and other malignant tumors of the buccal cavity.....	25	24	1		
40. Cancer and other malignant tumors of the stomach, liver.....	47	31	16		
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum.....	12	9	3		
42. Cancer and other malignant tumors of the female genital organs.....	17	14	2	1	
43. Cancer and other malignant tumors of the breast.....	7	7			
44. Cancer and other malignant tumors of the skin.....	7	6	1		
45. Cancer and other malignant tumors of other organs or of organs not specified.....	65	55	10		
46. Other tumors (tumors of the female genital organs excepted).....	82	73	9		
47. Acute articular rheumatism.....	52	52			
48. Chronic rheumatism and gout.....	7	7			
50. Diabetes.....	14	11	3		
51. Exophthalmic goitre.....	5	4	1		
53. Leuchaemia.....	2	2			
54. Anaemia, chlorosis.....	121	105	16		
55. Other general diseases.....	23	21	2		
56. Alcoholism (acute or chronic).....	14	11	1	2	
59. Other chronic poisonings.....	1	1			
60. Encephalitis.....	1	1			
61. Simple meningitis.....	8	1	7		
61a. Cerebrospinal fever.....	13	2	10	1	
62. Locomotor ataxia.....	3	3			
63. Other diseases of the spinal cord.....	17	12	5		
64. Cerebral haemorrhage, apoplexy.....	39	20	17	2	
66. Paralysis without specified cause.....	43	32	10	1	
67. General paralysis of the insane.....	2	2			
68. Other forms of mental alienation.....	29	20		9	
69. Epilepsy.....	27	24	2	1	
72. Chorea.....	2	2			
73a. Hysteria.....	24	24			
73b. Neuralgia and neuritis.....	139	134	4	1	
74. Other diseases of the nervous system.....	49	46	3		
75b. Trachoma.....	3	3			
75c. Other diseases of the eyes and their annexa.....	553	538	8	5	2
76. Diseases of the ears.....	75	62	11	1	1
77. Pericarditis.....	6	5	1		
78. Acute endocarditis.....	28	12	16		
79. Organic diseases of the heart.....	286	206	78	2	
80. Angina pectoris.....	7	7			

*Philippine General Hospital—Continued.*

TABLE OF DISEASES—Continued.

Diseases.	Cases.	Dis-charge.	Died.	Trans-ferred.	Deserted.
81. Diseases of the arteries, atheroma, aneu-rysm, etc.	49	40	7	2	-----
82. Embolism and thrombosis	8	3	5	-----	-----
83. Diseases of the veins (varices, haemor-rhoids, phlebitis, etc.)	95	92	1	-----	2
84. Diseases of the lymphatic system (lymphan-gitis, etc.)	49	45	4	-----	-----
85. Haemorrhage; other diseases of the circula-tory system	24	15	9	-----	-----
86. Diseases of the nasal fossae	138	136	2	-----	-----
87. Diseases of the larynx	15	10	4	1	-----
88. Diseases of the thyroid body	31	30	1	-----	-----
89. Acute bronchitis	163	156	6	1	-----
90. Chronic bronchitis	38	37	1	-----	-----
91. Bronchopneumonia	183	105	76	2	-----
92. Pneumonia	73	60	10	1	2
93. Pleurisy	116	99	14	3	-----
94. Pulmonary congestion, pulmonary apoplexy	66	20	46	-----	-----
96. Asthma	44	42	2	-----	-----
98. Other diseases of the respiratory system (tuberculosis excepted)	8	4	3	1	-----
99a. Diseases of the teeth and gums	75	63	11	1	-----
99b. Other diseases of the mouth and annexe	60	51	8	1	-----
100. Diseases of the pharynx	287	284	1	2	-----
101. Diseases of the oesophagus	6	6	-----	-----	-----
102. Ulcer of the stomach	21	19	2	-----	-----
103. Other diseases of the stomach (cancer excepted)	91	91	-----	-----	-----
104. Diarrhoea and enteritis (under 2 years)	96	76	19	1	-----
105. Diarrhoea and enteritis (2 years and over)	192	176	13	2	1
106. Ankylostomiasis	424	406	13	5	-----
107. Intestinal parasites	3,545	3,408	111	18	8
108. Appendicitis and typhlitis	206	196	10	-----	-----
109. Hernia, intestinal obstruction	121	103	18	-----	-----
110a. Diseases of the anus and faecal fistulas	54	53	1	-----	-----
110b. Other diseases of the intestines	108	85	23	-----	-----
113. Cirrhosis of the liver	16	11	5	-----	-----
114. Biliary calculi	32	27	5	-----	-----
115. Other diseases of the liver	124	92	31	1	-----
116. Diseases of the spleen	11	9	2	-----	-----
117. Simple peritonitis (nonpuerperal)	173	136	37	-----	-----
118. Other diseases of the digestive system (can-cer and tuberculosis excepted)	5	5	-----	-----	-----
119. Acute nephritis	111	60	50	1	-----
120. Bright's disease	178	134	40	4	-----
122. Other diseases of the kidneys and annexe	42	36	6	-----	-----
123. Calculi of the urinary passages	41	40	1	-----	-----
124. Diseases of the bladder	175	156	19	-----	-----
125. Diseases of the urethra, urinary abscess, etc.	95	91	4	-----	-----
126. Diseases of the prostate	14	14	-----	-----	-----
127. Nonvenereal diseases of the male genital organs	78	75	3	-----	-----
128. Uterine haemorrhage (nonpuerperal)	9	9	-----	-----	-----
129. Uterine tumor (noncancerous)	26	24	2	-----	-----
130a. Metritis	224	221	3	-----	-----
130b. Other diseases of the uterus	387	377	8	1	1
131. Cysts and other tumors of the ovary	75	69	6	-----	-----
132. Salpingitis and other diseases of the female genital organs	108	103	5	-----	-----
133. Nonpuerperal diseases of the breast (cancer excepted)	7	7	-----	-----	-----
134b. Accidents of pregnancy	302	286	15	-----	1
135. Puerperal haemorrhage	92	68	24	-----	-----
136. Other accidents of labor	1,174	1,125	49	-----	-----
137. Puerperal septicaemia	53	40	13	-----	-----
138. Puerperal albuminuria and convulsions	14	10	4	-----	-----
139. Puerperal phlegmasia alba dolens, embolus, sudden death	9	4	5	-----	-----
140. Following childbirth (not otherwise defined)	48	39	9	-----	-----
141. Puerperal diseases of the breast	7	7	-----	-----	-----
142. Gangrene	29	17	12	-----	-----
143. Furuncle	74	66	8	-----	-----
144. Acute abscess	129	113	15	-----	1
145a. Trichophytosis (tineas and peladas)	15	15	-----	-----	-----
145b. Scabies	44	40	4	-----	-----
145c. Other diseases of the skin and annexe	144	133	9	1	1
146. Diseases of the bones (tuberculosis excepted)	98	88	5	1	4
147. Diseases of the joints (tuberculosis and rheumatism excepted)	25	25	-----	-----	-----
148. Amputations	10	8	2	-----	-----
149. Other diseases of the organs of locomotion	30	30	-----	-----	-----

## Philippine General Hospital—Continued.

TABLE OF DISEASES—Continued.

Diseases.	Cases.	Dis-charge.	Died.	Trans-ferred.	Deserted.
150. Congenital malformations (stillbirths not included).....	64	62	2		
151b. Congenital debility, icterus, and sclerema.....	54	47	7		
152. Other diseases peculiar to early infancy.....	19	14	5		
154. Senility.....	16	11	4	1	
157. Suicide by hanging or strangulation.....	1	1			
164. Poisoning by food.....	4	4			
165b. Other acute poisonings.....	33	26	7		
166. Conflagration.....	1	1			
167. Burns (conflagration excepted).....	61	47	14		
169. Accidental drowning.....	1	1			
170. Traumatism by firearms.....	9	8	1		
171. Traumatism by cutting or piercing instruments.....	48	46		2	
175. Traumatism by other crushing (vehicles, railways, landslides, etc.).....	2	2			
177b. Starvation.....	1	1			
183. Homicide by cutting or piercing instruments.....	29	28	1		
185a. Dislocations.....	27	27			
185b. Sprains.....	19	19			
185c. Fractures (cause not specified).....	184	159	18	6	1
186. Other external violence.....	456	418	30	8	
187. Ill defined organic disease.....	61	43	18		
188. Sudden death.....	1	1			
189a. Cause of death not specified or ill defined.....	293	259	32	1	1
189b. No disease, feigned disease.....	47	41	6		
Total.....	16,431	14,766	1,476	158	31

A total of 1,721 office calls and 3 outside visits were attended by the physicians connected with the institution.

## PRISON SANITATION.

## BILIBID PRISON REPORT OF SICK.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
1. Typhoid fever.....		1	1			
4. Malaria.....	3	86			86	3
5. Smallpox.....	3	3		4	2	
12. Asiatic cholera.....		1			1	
Cholera carriers.....	16	50			66	
14. Dysentery.....	24	373			392	6
17. Leprosy.....		4		4		
19. Other epidemic diseases.....	6	164		1	168	1
20. Purulent infection and septicaemia.....		24			24	
24. Tetanus.....		1		1		
27. Beriberi.....	4	5			7	2
28. Tuberculosis of the lungs.....	87	129	51	8	79	78
30. Tuberculosis meningitis.....		1	1			
31. Abdominal tuberculosis.....		3	1		2	
34. Tuberculosis of other organs.....	83	27			107	3
36. Rickets.....		1			1	
37a. Syphilis, primary.....	2	5			7	
37b. Syphilis, secondary.....	2	7			9	
37c. Syphilis, tertiary.....	3	22		5	19	1
38a. Soft chancre.....		1			1	
38b. Gonococcus infection.....	20	79			96	3
40. Cancer and other malignant tumors of the stomach, liver.....		1	1			
46. Other tumors (tumors of the female genital organs excepted).....	2	7			9	
47. Acute articular rheumatism.....		13			11	2
49. Scurvy.....		1			1	
54. Anaemia, chlorosis.....		1			1	
55. Other general diseases.....		1			1	
56. Alcoholism (acute or chronic).....		2			2	
59. Other chronic poisonings.....	18	594			601	11
61. Simple meningitis.....		1			1	
63. Other diseases of the spinal cord.....		3			3	
66. Paralysis without specified cause.....		8			6	2
68. Other forms of mental alienation.....	5	6		10	1	

*Prison Sanitation—Continued.*

## BILIBID PRISON REPORT OF SICK—Continued.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
69. Epilepsy	1	2			3	
73b. Neuralgia and neuritis	1	3			4	
75b. Trachoma	1	1			2	
75. Other diseases of the eyes and their annexa	13	96			107	2
76. Diseases of the ears	2	3			5	
79. Organic diseases of the heart		3			2	1
81. Diseases of the arteries, atheroma, aneurysm, etc.	1	1			2	
83. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	7	40			46	1
84. Diseases of the lymphatic system (lymphangitis, etc.)	1	3			4	
86. Diseases of the nasal fossae		4			4	
88. Diseases of the thyroid body		3			3	
89. Acute bronchitis		2			2	
90. Chronic bronchitis		1			1	
92. Pneumonia		25	4		20	1
93. Pleurisy	2	22	3		21	
94. Pulmonary congestion, pulmonary apoplexy		1			1	
95. Gangrene of the lungs	4	1	1		4	
96. Asthma	11	52			53	10
98. Other diseases of the respiratory system (tuberculosis excepted)		3	3		1	
99a. Diseases of the teeth and gums		49			48	1
99b. Other diseases of the mouth and annexa		1			1	
100. Diseases of the pharynx	2	2			4	
102. Ulcer of the stomach	1	9	3		5	2
104. Diarrhoea and enteritis (under 2 years)		1	1			
105. Diarrhoea and enteritis (2 years and over)		1			1	
106. Ankylostomiasis	37	1,189			1,221	5
107. Intestinal parasites	45	1,924			1,951	18
108. Appendicitis and typhlitis		8	1		7	
109. Hernia, intestinal obstruction	19	33			50	2
110a. Diseases of the anus and faecal fistulas	1	17			16	2
110b. Other diseases of the intestines		35			35	
115. Other diseases of the liver		5	1		4	
116. Diseases of the spleen		1			1	
117. Simple peritonitis (nonpuerperal)		1			1	
118. Other diseases of the digestive system (cancer and tuberculosis excepted)		1			1	
119. Acute nephritis		1			1	
120. Bright's disease		31	4		21	6
125. Diseases of the urethra, urinary abscess, etc		3			3	
126. Diseases of the prostate		1			1	
127. Nonvenereal diseases of the male genital organs	12	51			60	3
129. Uterine tumor (noncancerous)		2			1	1
134b. Accidents of pregnancy		1			1	
141. Puerperal diseases of the breast		2			2	
143. Furuncle		8			7	1
144. Acute abscess	4	8			12	
145a. Trichophytosis (tinea and peladas)	15	96		1	102	8
145b. Scabies		9			9	
145c. Other diseases of the skin and annexa	1	15			15	1
146. Diseases of the bones (tuberculosis excepted)	1	1			2	
147. Diseases of the joints (tuberculosis and rheumatism excepted)		4			3	1
149. Other diseases of the organs of locomotion		3			3	
150. Congenital malformations (stillbirths not included)	4	13			15	2
154. Senility		4			3	1
167. Burns (conflagration excepted)		2			2	
170. Traumatism by firearms		1			1	
171. Traumatism by cutting or piercing instruments		19			19	
185a. Dislocations		2			2	
185c. Fractures (cause not specified)		4			4	
186. Other external violence		6			6	
187. Ill defined organic disease		1			1	
189a. Cause of death not specified or ill defined	74	284	1	7	331	19
Total	538	5,740	76	41	5,962	199



*Prison Sanitation—Continued.*

## BILIBID PRISON LABORATORY EXAMINATIONS.

Blood .....	4,788
Faeces .....	8,167
Sputum .....	3,728
Urine .....	4,840
Miscellaneous .....	126
<b>Total .....</b>	<b>21,594</b>
Vaccinations performed .....	12,158

## BILIBID PRISON REPORT OF DEATHS.

Diseases.	Presidio.				Carcel.				Conditions.				
	Fili-pinos.		Chi-nese.		Fili-pinos.		Chi-nese.		Total.	Married.	Single.	Widowed.	Unknown.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.					
1. Typhoid fever .....						1			1	1			
14. Dysentery .....	1								1	1			
24. Tetanus .....							1		1	1			
28. Tuberculosis of the lungs .....	35				14		3		52	27	20	5	
29. Acute miliary tuberculosis .....	2				1				3	2		1	
40. Cancer and other malignant tumors of the stomach, liver .....	1								1	1			
64. Cerebral haemorrhage, apoplexy .....	1								1	1			
68. Other forms of mental alienation .....	1	1			4				6	1	2		
77. Pericarditis .....	1								1			1	
88. Diseases of the thyreoid body .....	1								1			1	
92. Pneumonia .....	3				1				4	2	1	1	
93. Pleurisy .....	1								1	1			
95. Gangrene of the lung .....	1								1	1			
102. Ulcer of the stomach .....							1		1	1			
105. Diarrhoea and enteritis (2 years and over) .....					1		1		2	1			1
108. Appendicitis and typhlitis .....	1								1	1			
117. Simple peritonitis (nonpuerperal) .....	1								1		1		
120. Bright's disease .....	3				1				4	1	2	1	
183. Homicide by cutting or piercing ins- truments .....	1								1		1		
186. Other external violence .....					12				12	8	4		
<b>Total .....</b>	<b>54</b>	<b>1</b>			<b>34</b>	<b>1</b>	<b>6</b>		<b>96</b>	<b>51</b>	<b>31</b>	<b>13</b>	<b>1</b>

Died in Bilibid Hospital .....	76
Legally executed .....	12
Died in San Lazaro Hospital .....	8
<b>Total .....</b>	<b>96</b>

## Prison Sanitation—Continued.

REPORT OF SICK AND INJURED PRISONERS AT STOCKADE HOSPITAL,  
CORREGIDOR.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
4. Malaria		4			4	
14. Dysentery	1	7	1		7	
18. Erysipelas		1			1	
19. Other epidemic diseases	1	43		4	40	
20. Purulent infection and septicæmia	6	46	1		51	
28. Tuberculosis of the lungs	1	20	1	20		
34. Tuberculosis of other organs	1	2		1	2	
38a. Soft chancre	2	1			3	
38b. Gonococcus infection		12		1	11	
46. Other tumors (tumors of the female genital organs excepted)		4		1	3	
47. Acute articular rheumatism		3			3	
48. Chronic rheumatism and gout		4		2	2	
49. Scurvy		1		1		
54. Anæmia, chlorosis		1			1	
68. Other forms of mental alienation		1		1		
73b. Neuralgia and neuritis		2		2		
75c. Other diseases of the eyes and their annexa	2	229		2	229	
76. Diseases of the ears	1	5		1	5	
83. Diseases of the veins (varices, hæmorrhoids, phlebitis etc.)		5			5	
84. Diseases of the lymphatic system (lymphangitis, etc.)		14			14	
86. Diseases of the nasal fossæ		1			1	
87. Diseases of the larynx		1		1		
89. Acute bronchitis	1	59			60	
90. Chronic bronchitis	1	7			8	
91. Bronchopneumonia		4			4	
92. Pneumonia	3	18	1		19	1
93. Pleurisy	2	16		4	14	
96. Asthma		6		1	5	
98. Other diseases of the respiratory system (tuberculosis excepted)		4			4	
99a. Diseases of the teeth and gums		1			1	
99b. Other diseases of the mouth and annexa	2	6			8	
100. Diseases of the pharynx		3			3	
103. Other diseases of the stomach (cancer excepted)		3			3	
105. Diarrhœa and enteritis (2 years and over)		16			16	
106. Ankylostomiasis	5	54		1	57	1
107. Intestinal parasites		22			21	1
108. Appendicitis and typhlitis		1			1	
109. Hernia, intestinal obstruction		1			1	
110a. Diseases of the anus and fæcal fistulas		3			3	
110b. Other diseases of the intestines		51		1	50	
116. Diseases of the spleen		1				
119. Acute nephritis		1				1
120. Bright's disease		1			1	
122. Other diseases of the kidneys and annexa		1				1
124. Diseases of the bladder		8			8	
125. Diseases of the urethra, urinary abscess, etc		2			2	
126. Diseases of the prostate		1			1	
127. Nonvenereal diseases of the male genital organs	1	2			3	
143. Furuncle		15			15	
144. Acute abscess	2	50	1		51	
145c. Other diseases of the skin and annexa		10			10	
147. Disease of the joints (tuberculosis and rheumatism excepted)		1			1	
149. Other diseases of the organs of locomotion		6			6	
150(3). Other congenital malformations		2			2	
157. Suicide by hanging or strangulation		1	1			
165a. Venomous bites and stings		1			1	
167. Burns (conflagration excepted)		3			3	
170. Traumatism by firearms		2	1		1	
171. Traumatism by cutting or piercing instruments		53			53	
179. Effects of heat		3			3	
182. Homicide by firearms		1	1			
185b. Other acute poisonings		7			7	
185c. Fractures (cause not specified)	1	5			5	
186. Other external violence	3	88			90	1
189a. Cause of death not specified or ill defined		11		4	7	
189b. No disease, feigned disease		1			1	
Total	36	959	8	49	931	7

*Prison Sanitation—Continued.*  
**IWAHIG PENAL COLONY SICK REPORT.**

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
1. Typhoid fever.....		1		1	
3. Relapsing fever.....		1		1	
4. Malaria.....	40	909	4	919	26
4a. Malarial cachexia.....		1	1		
10. Influenza.....		10		7	3
14. Dysentery.....		5	1	3	1
20. Purulent infection and septicaemia.....	1	70		69	2
25. Mycoses.....		1		1	
27. Beriberi.....		4	1	3	
28. Tuberculosis of the lungs.....	21	178	14	173	12
31. Abdominal tuberculosis.....	1	1	2		
33. White swellings.....		1		1	
38a. Soft chancre.....	1			1	
38b. Gonococcus infection.....		1		1	
40. Cancer and other malignant tumors of the stomach, liver.....		1	1		
46. Other tumors (tumors of the female genital organs excepted).....		1		1	
47. Acute articular rheumatism.....	1	4	1	4	
48. Chronic rheumatism and gout.....		3		3	
54. Anaemia, chlorosis.....		2		2	
64. Cerebral haemorrhage, apoplexy.....		2	1	1	
66. Paralysis without specified cause.....	1			1	
68. Other forms of mental alienation.....		1		1	
73a. Hysteria.....		2		2	
73b. Neuralgia and neuritis.....		4		4	
74. Other diseases of the nervous system.....		4		4	
75c. Other diseases of the eyes and their annexa.....		11		11	
79. Organic diseases of the heart.....		1		1	
83. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.).....		1		1	
89. Acute bronchitis.....		1			1
90. Chronic bronchitis.....		3		3	
92. Pneumonia.....		2	1	1	
94. Pulmonary congestion, pulmonary apoplexy.....		3		3	
98. Other diseases of the respiratory system (tuberculosis excepted).....		11		10	1
99a. Diseases of the teeth and gums.....		3		2	1
103. Other diseases of the stomach (cancer excepted).....		8		8	
104. Diarrhoea and enteritis (under 2 years).....		3		3	
105. Diarrhoea and enteritis (2 years and over).....		21		21	
106. Ankylostomiasis.....		9		9	
107. Intestinal parasites.....		3		3	
108. Appendicitis and typhlitis.....		2		2	
110a. Diseases of the anus and faecal fistulas.....		2		2	
110b. Other diseases of the intestines.....		3		3	
117. Simple peritonitis (nonpuerperal).....		1		1	
120. Bright's disease.....	1	1		2	
123. Calculi of the urinary passages.....		2		2	
127. Nonvenereal diseases of the male genital organs.....		1		1	
130b. Other diseases of the uterus.....		1		1	
142. Gangrene.....		1		1	
143. Furuncle.....		2		2	
144. Acute abscess.....	8	10		12	1
145c. Other diseases of the skin and annexa.....	1	19		19	1
146. Diseases of the bones (tuberculosis excepted).....		3		2	1
148. Amputations.....		21		21	
149. Other diseases of the organs of locomotion.....		14		14	
170. Traumatism by firearms.....		1		1	
171. Traumatism by cutting or piercing instruments.....	7	35	1	40	1
185b. Sprains.....		1		1	
186. Other external violence.....		19		17	2
189a. Cause of death not specified or illdefined.....	1	97		97	1
<b>Total.....</b>	<b>79</b>	<b>1,523</b>	<b>28</b>	<b>1,519</b>	<b>55</b>

**IWAHIG PENAL COLONY LABORATORY EXAMINATIONS.**

Blood.....	988
Faeces.....	314
Sputum.....	57
Urine.....	17
<b>Total.....</b>	<b>1,376</b>

**MISCELLANEOUS.**

Major operations performed.....	9
Minor operations performed.....	97
Surgical dressings, including suturing.....	7,224

## OFFICE OF SANITARY ENGINEERING.

## STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Health districts.					
	No. 1.	Nos. 2 and 3.	No. 4.	No. 5.	No. 6.	Total.
Orders Pending Dec. 31, 1914.....	48	204	71	139	12	474
Orders issued:						
Minor orders .....	19	16	9	12	10	66
Sewer orders .....	54	115	29	1	6	205
Vacating orders .....	16	111	63	37	3	230
Total .....	89	242	101	50	19	501
Grand total .....	137	446	172	189	31	975
Order completed:						
Minor orders .....	16	19	12	13	13	73
Sewer orders .....	32	124	32	2	4	194
Vacating orders .....	17	84	26	77	6	210
Total .....	65	227	70	92	23	477
Orders canceled:						
Minor orders .....	3	60	3	40		106
Sewer orders .....	6	22	18		2	48
Vacating orders .....	3	30	49	43		125
Total .....	12	112	70	83	2	279
Orders pending Dec. 31, 1915:						
Minor orders .....	9	4	3	4	3	23
Sewer orders .....	50	79	24	4	3	160
Vacating orders .....	1	14	5	6		36
Total .....	60	107	32	14	6	219

## STATISTICAL INFORMATION BY QUARTERS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Jan.- Mar., 1915.	Apr.- June, 1915.	July- Sept., 1915.	Oct.- Dec., 1915.	Total.
Orders pending Dec. 31, 1914.....					474
Orders issued:					
Minor orders .....	11	19	21	15	66
Sewer orders .....	71	44	53	37	205
Vacating orders .....	89	86	15	40	230
Total .....	171	149	89	92	501
Grand total .....					975
Orders completed:					
Minor orders .....	18	25	20	10	73
Sewer orders .....	72	49	42	32	194
Vacating orders .....	77	66	37	30	210
Total .....	166	140	99	72	477
Orders canceled:					
Minor orders .....	99	2	2	3	106
Sewer orders .....	11	26	4	7	48
Vacating orders .....	55	22	10	38	125
Total .....	165	50	16	48	279
Orders pending Dec. 31, 1915:					
Minor orders .....					23
Sewer orders .....					160
Vacating orders .....					36
Total .....					219

## Office of Sanitary Engineering—Continued.

## STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Health districts.					
	Intra-muros.	Meisic.	Sam-paloc.	Tondo.	Paco.	Total.
Strong-material plans approved for new buildings, including additions and alterations .....	77	168	104	54	42	445
Strong-material plans canceled .....			3	1		4
Permits for minor building construction:						
Approved .....	132	195	96	29	31	483
Disapproved .....	48	82	29	24	16	199
New buildings completed .....	82	157	72	52	30	393
Light and mixed material structures:						
Permits approved .....		1	235	779	174	1,189
Permits disapproved .....			93	298	131	522
Total number of building projects passed upon .....	339	603	632	1,237	424	3,235

## STATISTICAL INFORMATION BY QUARTERS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Jan.-Mar., 1915.	Apr.-June, 1915.	July-Sept., 1915.	Oct.-Dec., 1915.	Total.
Strong-material plans approved for new buildings, including additions and alterations .....	78	111	123	133	445
Strong-material plans canceled .....	3			1	4
Permits for minor building construction:					
Approved .....	101	122	179	81	483
Disapproved .....	39	46	59	55	199
New buildings completed .....	83	37	135	78	393
Light and mixed material structures:					
Permits approved .....	125	188	660	216	1,189
Permits disapproved .....	87	185	182	68	522
Total number of building projects passed upon .....	516	749	1,338	632	3,235

## STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Health districts.					
	Intra-muros.	Meisic.	Sam-paloc.	Tondo.	Paco.	Total.
Prosecutions:						
Convictions .....		17	4	2	1	34
Dismissals .....	8	5	2			15
Amount of fines .....		P190	P46	P20	P25	P281

## STATISTICAL INFORMATION BY QUARTERS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Jan.-Mar., 1915.	Apr.-June, 1915.	July-Sept., 1915.	Oct.-Dec., 1915.	Total.
Prosecutions:					
Convictions .....	11	5	7	1	24
Dismissals .....	4	9	2		15
Amount of fines .....	P75	P91	P105	P10	P281

\*Arrangements made to comply with the orders.

## Office of Sanitary Engineering—Continued.

## STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Health districts.					
	Intra-muros.	Meisic.	Sam-paloc.	Tondo.	Paco.	Total.
Plumbing permits issued.....	230	430	166	87	67	880
Plumbing projects completed.....	224	426	165	118	86	1,019
Premises connected to the sanitary sewer to Jan. 1, 1915.....	1,111	1,750	642	222	250	3,975
Premises connected Jan. 1 to Dec. 31, 1915.....	102	206	81	45	18	452
Total.....	1,213	1,956	723	267	268	4,427

## STATISTICAL INFORMATION BY QUARTERS, MANILA ONLY, FISCAL YEAR ENDED DECEMBER, 1915.

	Jan.-Mar., 1915.	Apr.-June, 1915.	July-Sept., 1915.	Oct.-Dec., 1915.	Total.
Plumbing permits issued.....	238	261	240	247	980
Plumbing projects completed.....	273	236	256	254	1,019
Premises connected to the sanitary sewer to Jan. 1, 1915.....					3,975
Premises connected Jan. 1 to Dec. 31, 1915.....	142	113	101	99	452
Total.....					4,427

## SAN LAZARO HOSPITAL.

Patients—	
In hospital January 1, 1915.....	573
Admitted during the year.....	2,672
Discharged during the year.....	1,930
Transferred during the year.....	192
Escaped during the year.....	103
Died during the year.....	353
Remaining in hospital December 31, 1915.....	667

## Average number of patients subsisted per day during 1915.

January.....	577	July.....	564
February.....	579	August.....	587
March.....	595	September.....	596
April.....	606	October.....	703
May.....	614	November.....	622
June.....	518	December.....	667

## Average daily cost of subsistence for 1915.

January.....	₱0.35	July.....	₱0.37
February.....	.319	August.....	.357
March.....	.366	September.....	.36
April.....	.328	October.....	.345
May.....	.31	November.....	.371
June.....	.378	December.....	.362
General average for year, ₱0.3505.			

## INSANE DEPARTMENT.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
In hospital Jan. 1, 1915.....	9	—	2	1	228	46	7	—	2	1	296
Admitted.....	28	3	5	1	82	22	13	—	1	1	156
Discharged.....	28	2	2	1	28	11	12	—	1	2	87
Transferred.....	1	—	—	—	12	—	—	—	—	—	13
Escaped.....	—	—	—	—	1	—	—	—	—	—	1
Died.....	2	—	1	—	38	8	5	—	—	—	52
Remaining.....	6	1	4	1	231	49	5	—	2	—	299

In hospital Jan. 1, 1915.	1			129	73	1			204
Admitted				322	135	11			468
Discharged				48	41	11			100
Transferred	1			104	49	1			155
Escaped				78	24				102
Died				14	9				23
Remaining				207	85				292

In hospital Jan. 1, 1915.....			1		2		1			4
Admitted.....	19	6	4	5	54	30				118
Discharged.....	19	6	5	5	54	30	1			120
Transferred.....					1					1
Died.....										
Remaining.....					1					1

In hospital Jan. 1, 1915.	1				16	5			1	23
Admitted	7	8	2	5	430	330		2		784
Discharged	3	1	1	2	24	27			1	69
Discharged, not diphtheria		3			1	2				6
Discharged, "carriers"	5	4	1	3	407	288		2		710
Transferred										
Died					11	14				25
Died, not diphtheria		1			1					1
Remaining					2	4				6

In hospital Jan. 1, 1915	1		1	21	10				83
Admitted	4		1	429	183	1		4	624
Discharged	3		1	275	108	1			388
Transferred				4	5				9
Died	2		1	133	61			4	202
Remaining			1	38	19				58

In hospital Jan. 1, 1815									
Admitted	8	1	1	50	43				103
Discharged	6		1	41	36				84
Transferred				1	2				3
Died				1	1				2
Discharged, not measles				1					1
Discharged, contacts				4	4				8
Remaining	2	1		2					5

In hospital Jan. 1, 1915	1	3	3	2			6
Admitted	5		101	52	2	5	168
Discharged	1		17	9		2	29
Discharged, not cholera	3		34	20	1	1	59
Discharged, "carriers"	2	3	41	20	1	1	68
Died			12	4		1	17
Died, not cholera				1			1
Remaining							

*San Lazaro Hospital—Continued.*

## HOOKWORM DEPARTMENT.

In hospital Jan. 1, 1915 .....	-----	-----	-----	-----	65	10	14	-----	1	-----	90
Admitted .....	-----	-----	-----	-----	65	10	14	-----	1	-----	90
Discharged .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Died .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Remaining .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## TETANUS DEPARTMENT.

In hospital Jan. 1, 1915 .....	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	1
Admitted .....	-----	-----	-----	-----	34	11	-----	-----	1	-----	46
Discharged .....	-----	-----	-----	-----	15	5	-----	-----	-----	-----	20
Discharged, not tetanus .....	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	1
Transferred .....	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	1
Died .....	-----	-----	-----	-----	17	4	-----	-----	1	-----	22
Remaining .....	-----	-----	-----	-----	2	1	-----	-----	-----	-----	3

## OPIUM DEPARTMENT.

In hospital Jan. 1, 1915 .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Admitted .....	1	-----	-----	-----	-----	-----	1	-----	-----	-----	2
Discharged .....	1	-----	-----	-----	-----	-----	1	-----	-----	-----	2
Transferred .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Died .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Remaining .....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## MISCELLANEOUS DEPARTMENT.

Diseases.	In hospital at last report.	Admitted.	Discharged.	Transferred.	Died.	Remaining.
Paralysis .....	1	1	-----	1	-----	1
Rabies .....	3	4	4	-----	3	-----
Scarlatina, suspected .....	2	-----	2	-----	-----	-----
Mumps .....	-----	35	31	3	1	-----
Syphilis .....	1	1	-----	-----	-----	-----
Observation .....	-----	45	34	6	3	2
Pertussis .....	-----	9	9	-----	-----	-----
Yaws .....	-----	1	1	-----	-----	-----
Erysipelas .....	-----	4	4	-----	-----	-----
Sarcoma .....	-----	1	-----	-----	1	-----
Measles (contacts) .....	-----	3	3	-----	-----	-----
Plague, suspected .....	-----	1	1	-----	-----	-----
Tropical ulcer .....	-----	2	2	-----	-----	-----
Ophthalmia .....	-----	5	5	-----	-----	-----
Typhoid, suspected .....	-----	1	1	-----	-----	-----
Total .....	6	113	98	10	8	3



## San Lazaro Hospital—Continued.

## MORGUE REPORT.

	Bodies.		Bodies.
Remaining in morgue from last report.....	3	Received—Continued.	
Received:		Melancholia.....	1
Cholera.....	36	Cardiac dilatation.....	1
Suspected.....	1	Poisoning.....	1
Diphtheria.....	25	Convulsions following operation.....	1
Leprosy.....	19	Stillborn.....	200
Suspected.....	1	Pulmonary tuberculosis.....	2
Tetanus.....	23	Set of bones.....	5
Cancer of uterus.....	1	Undetermined.....	88
Typhoid fever.....	4	Other diseases.....	
Sarcoma.....	1	Total.....	433
Probable hydrophobia.....	1		
Measles (bronchopneumonia).....	3	Dropped:	
Meningitis.....	1	Buried by city.....	262
Dysentery, amoebic.....	1	Buried by family.....	71
Beriberi, infantile.....	1	Turned over to family.....	40
Malaria, malignant.....	1	Cremated.....	42
Bronchopneumonia.....	1	Buried by Bureau of Prisons.....	14
Lobar pneumonia.....	1	Transferred to Army morgue.....	1
Mania, chronic.....	1	Transferred to city morgue.....	2
Manic depressive insanity.....	1	Remaining in morgue.....	1
Dementia—		Total.....	433
Terminal.....	5		
Senile.....	2		

## MORGUE AND CREMATORY DEPARTMENTS.

Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Cholera.....	7	10	16	2								1	36
Probable cholera.....								1					1
Diphtheria.....	3	1	2	1	3		4	1	5	3		2	25
Leprosy.....	2	1	5	1		2	1	2		2	3		19
Suspected.....	1												1
Tetanus.....			1	3	3	2	2	3	3		1	5	23
Cancer of uterus.....		1											1
Typhoid fever.....				1		1				1		1	4
Sarcoma.....						1							1
Probable hydrophobia.....								1					1
Measles (bronchopneumonia).....					1						1	1	3
Meningitis.....						1							1
Dysentery amoebic.....											1		1
Beriberi, infantile.....	1												1
Malaria, malignant.....							1						1
Bronchopneumonia.....								1					1
Lobar pneumonia.....								1					1
Mania, chronic.....		1						1					1
Manic depressive insanity.....		1											1
Dementia:													
Terminal.....			5										5
Senility.....							2						2
Melancholia.....					1								1
Cardiac dilatation.....									1				1
Poisoning.....										1			1
Convulsions, following operation.....											1		1
Stillborn.....									1				1
Pulmonary tuberculosis.....	17	17	17	17	18	16	15	19	10	19	13	22	200
Set on bones.....		2											2
Undetermined.....					1	4							5
Other diseases.....	1	5	7	4	4	17	9	10	6	9	6	10	88
Total.....	32	39	53	29	31	44	34	39	26	35	25	43	430

Bodies remaining in morgue from last report, 3.

## SOUTHERN ISLANDS HOSPITAL.

## HOSPITAL CASES.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Escaped.	Remaining.
1. Typhoid fever	1	69	7		57		6
4. Malaria	7	53			59		1
4a. Malarial cachexia		1			1		
5. Smallpox	1	12			12	1	
6. Measles		1	1				
9. Diphtheria and croup		1			1		
12. Asiatic cholera		2			2		
14. Dysentery	3	48	5		46		
17. Leprosy		5		3	2		
18. Erysipelas	1	1	1		1		
19. Other epidemic diseases	1	24			25		
20. Purulent infection and septicaemia		3	2		1		
24. Tetanus		2					
27. Beriberi	2	27	5		24		
28. Tuberculosis of the lungs		7	2		5		
31. Abdominal tuberculosis		3			3		
34. Tuberculosis of other organs	1	4			5		
35. Disseminated tuberculosis		1			1		
Syphilis:							
37b. Secondary		3			3		
37c. Tertiary		4			3		1
38a. Soft chancre		2			2		
38b. Gonococcus infection		4			3		1
39. Cancer and other malignant tumors of the buccal cavity		2			2		
40. Cancer and other malignant tumors of the stomach, liver.		1	1				
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum		1	1				
43. Cancer and other malignant tumors of the breast		2	1		1		
44. Cancer and other malignant tumors of the skin		5	1		5		
45. Cancer and other malignant tumors of other organs or of organs not specified		8	2		6		
46. Other tumors (tumors of the female genital organs excepted)		6			6		
47. Acute articular rheumatism		6			6		
48. Chronic rheumatism and gout	1	1			2		
49. Scurvy		2	1		1		
53. Leuchaemia		2	1		1		
54. Anaemia, chlorosis		4	1		3		
55. Other general diseases		4	4				
59. Other chronic poisonings		1			1		
63. Other diseases of the spinal cord		1			1		
64. Cerebral haemorrhage, apoplexy		1	1				
65. Softening of the brain		1			1		
66. Paralysis without specified cause		1			1		
72. Chorea		1			1		
73b. Neuralgia and neuritis		5			5		
74. Other diseases of the nervous system		2			2		
75a. Follicular conjunctivitis		1			1		
75b. Trachoma		10			9		1
75c. Other diseases of the eyes and their annexa	4	23			25		2
76. Diseases of the ears		1			1		
78. Acute endocarditis		3	2		1		
81. Diseases of the arteries, atheroma, aneurysm, etc.		2			2		
83. Diseases of the veins (varices, haemorrhoids, phlebitis, etc.)	1	16			17		
84. Diseases of the lymphatic system (lymphangitis, etc.)		1			1		
86. Diseases of the nasal fossae		1			1		
88. Diseases of the thyroid body		1	1				
89. Acute bronchitis		6	1		5		
90. Chronic bronchitis		1			1		
91. Bronchopneumonia		6	4		2		
92. Pneumonia		11	3		8		
93. Pleurisy		1			1		
98. Other diseases of the respiratory system (tuberculosis excepted)		1	1				
99b. Other diseases of the mouth and annexa		6			6		
100. Diseases of the pharynx		6			6		
103. Other diseases of the stomach (cancer excepted)		17	1		16		
104. Diarrhoea and enteritis (under 2 years)		3	1		2		
106. Diarrhoea and enteritis (2 years and over)		16			16		
106. Ankylostomiasis	13	198	4		194	2	11
107. Intestinal parasites	20	384	10		382	2	10
108. Appendicitis add typhlitis	1	17	1		14		3
109. Hernia, intestinal obstruction	2	12	2		12		

## Southern Islands Hospital—Continued.

## HOSPITAL CASES—Continued.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Escaped.	Remaining.
110a. Diseases of the anus and faecal fistulas .....		13			13		
110b. Other diseases of the intestines .....	1	5	1		5		
112. Hydatid tumor of the liver .....		1	1				
113. Cirrhosis of the liver .....		4	1		3		
114. Biliary calculi .....		1	1				
115. Other diseases of the liver .....		3			3		
116. Diseases of the spleen .....		3	1		2		
117. Simple peritonitis (nonpuerperal) .....		3	3				
119. Acute nephritis .....		2	1		1		
120. Bright's disease .....	1	21	5		16		1
123. Calculi of the urinary passages .....	1	7	1		7		
124. Diseases of the bladder .....		6			6		
125. Diseases of the urethra, urinary abscess, etc. ....		6			6		
127. Nonvenereal diseases of the male genital organs ..	2	12			14		
129. Uterine tumor (non cancerous) .....		3			3		
130a. Metritis .....		20			20		
130b. Other diseases of the uterus .....		21			21		
131. Cysts and other tumors of the ovary .....		11	2		9		
132. Salpingitis and other diseases of the female genital organs ..		7			7		
133. Nonpuerperal diseases of the breast (cancer excepted) ..		2			2		
134a. Normal labor .....	1	30			31		
134b. Accidents of pregnancy .....		4			4		
136. Other accidents of labor .....		1			1		
137. Puerperal septichæmia .....		1			1		
142. Gangrene .....		1	1				
143. Furuncle .....		2			2		
144. Acute abscess .....	2	19			21		
145a. Trichophytosis (tinea and peladas) .....		1			1		
145b. Scabies .....		10			10		
145c. Other diseases of the skin and annexa .....	1	17	2		13		3
146. Diseases of the bones (tuberculosis excepted) .....		3			3		
148. Amputations .....		2			2		
149. Other diseases of the organs of locomotion .....		1			1		
150. Congenital malformations (stillbirths not included) ..	1	7	3		5		
151. Congenital debility, icterus, and sclerema .....	1				1		
151(2) Congenital debility .....		1	1				
153. Lack of care .....	1	21	6		15		1
160. Suicide by cutting or piercing instruments .....		2	1		1		
167. Burns (conflagration excepted) .....		6	1		5		
171. Traumatism by cutting or piercing instruments .....		20	1		18		1
172. Traumatism by fall .....		7			6	1	
174. Traumatism by machines .....		2			2		
175. Traumatism by other crushing (vehicles, railways, landslides, etc.) ..		1			1		
176. Injuries by animals .....		1			1		
183. Homicide by cutting or piercing instruments .....		9	3		6		
184. Homicide by other means .....		5			5		
185a. Dislocations .....		2			2		
185b. Sprains .....		4			4		
185c. Fractures (cause not specified) .....	1	16			17		
186. Other external violence .....		17	1		16		
187. Ill-defined organic disease .....		1			1		
189a. Cause of death not specified or ill defined .....		8			8		
189b. No disease, feigned disease .....		30	1		29		
Total .....	72	1,481	107	3	1,395	6	42

Patients treated in the outdoor department at the Southern Islands Hospital, 5,693.

*Southern Islands Hospital—Continued.*

## MISCELLANEOUS STATISTICS, SUMMARY, ETC.

*Outdoor department.*

Patients .....	5,562
Cases of diseases.....	5,693
Classified diseases .....	111
Visits to outpatients.....	19,651
Surgical dressings .....	14,698
Major emergency dressed.....	1
Minor emergency dressed.....	42
Minor operations performed.....	318
Vaccinations .....	183
Physical examinations .....	39
Calls made by hospital medical staff.....	515
Dental patients .....	282
Extractions .....	131
Prescriptions filled .....	10,329

*Hospital cases.*

Patients—	
Remaining from last report.....	34
Admitted .....	823
Discharged .....	739
Escaped .....	4
Died .....	88
Remaining December 31, 1915.....	26
Births in the hospital.....	28
Persons accompanying patients.....	32
Surgical dressings .....	4,503
Major operations performed.....	103
Minor operations performed.....	100
Major emergencies admitted.....	12
Minor emergencies admitted.....	10
Vaccinations .....	782
Autopsies held .....	16

*Nationality of patients admitted to hospital.*

	Male.	Female.	Total.
Americans .....	43	26	69
Filipinos .....	468	226	694
Japanese .....	2	—	2
Chinese .....	8	—	8
Europeans .....	25	14	39
Others .....	6	5	11
Total.....	552	271	823

*Laboratory examinations.*

Specimen.	Amer- icans.	Euro- peans.	Filipi- nos.	Others.	Total.
Blood .....	17	8	111	—	142
Fæces .....	42	11	818	14	885
Sputum .....	7	1	14	1	23
Urine .....	40	11	517	14	582
Miscellaneous .....	1	—	2	—	3
Total.....	107	81	1,462	35	1,635

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